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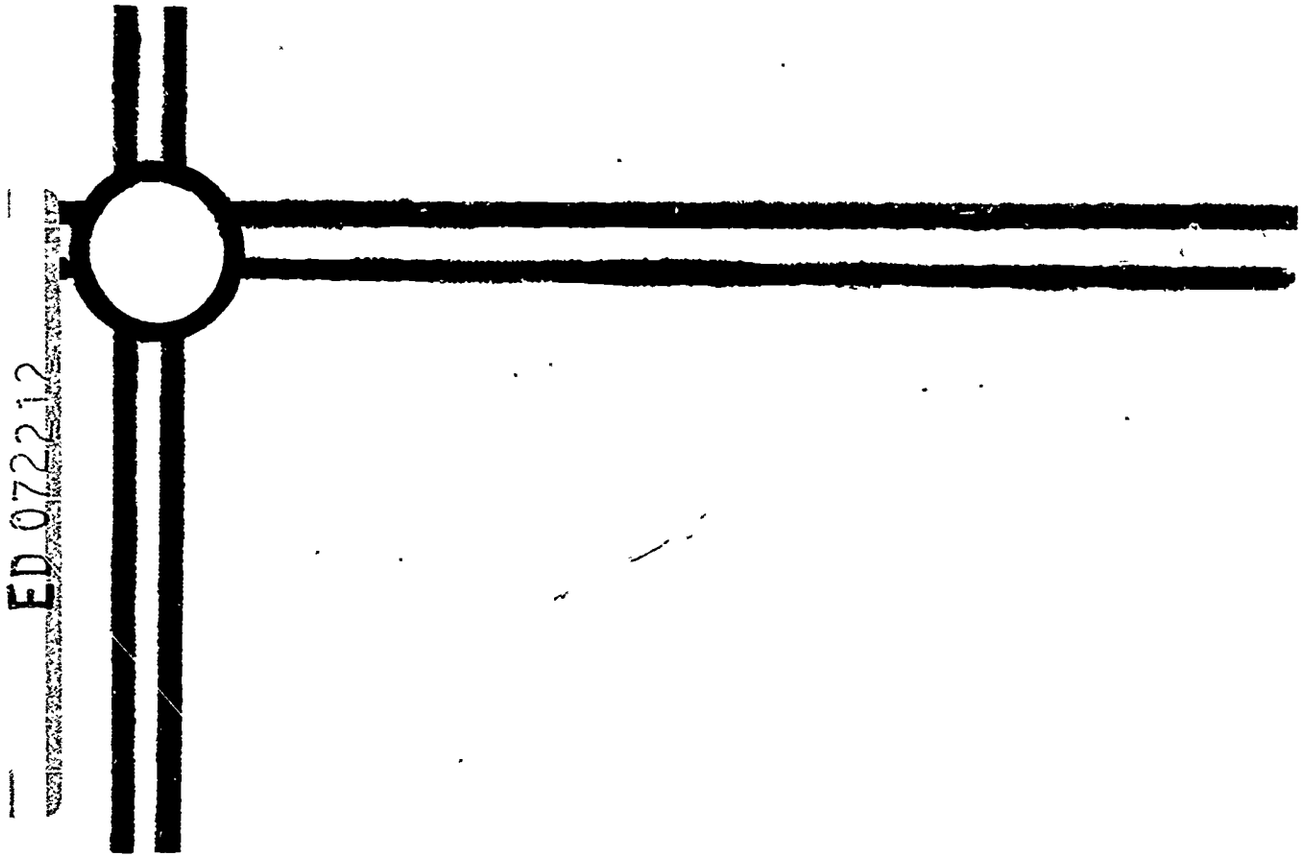
ABSTRACT

This federally funded exemplary career education project involved 35 Mini-Grant programs conducted within 24 elementary and middle schools in the Albuquerque Public Schools. Project highlights are described, noting the favorable impact of innovative career awareness activities upon disadvantaged Indian students, their parents, and the community. Shortcomings of the program were identified, such as lack of adequate facilities, time, and funds, and concerns for the future were voiced. The eight remaining sections of the report discuss: (1) arts and crafts projects, (2) industrial arts, (3) career awareness, (4) ecology, (5) home economics, (6) office education, (7) integrated career education activities, and (8) indexes by grade level, area, and school. Photographs illustrate the text, which includes performance objectives and teaching procedures for each separate project activity. (AG)



THE BEGINNINGS OF CAREER EDUCATION IN THE ALBUQUERQUE PUBLIC SCHOOLS

1971-72

THE BEGINNINGS

OF

CAREER EDUCATION

IN THE

ALBUQUERQUE PUBLIC SCHOOLS

Career Awareness Education For Students
in Selected Elementary and Mid-Schools

1971-72

An Innovative-Exemplary Project Report
Submitted June 30, 1972

ACKNOWLEDGEMENTS

This project, involving thirty-five Mini-Grant programs conducted within twenty-four Albuquerque schools, was made possible by a $19,000 grant from Federal funds awarded by the Research Coordinating Unit, Division of Vocational Education, State Department of Education. Acknowledgement is made to the State Department of Education in Santa Fe, New Mexico and to its staff members.

The project was under the direct supervision of Mr. Nelson Lowery, Director of Vocational Education, Albuquerque Public Schools, and his Coordinator, Mr. Leroy Brannon. Acknowledgement is also made to the Area Coordinators, who worked so closely with the projects.

Most of all, however, acknowledgement is given to the conscientious and enthusiastic work of all teachers and principals directly involved in the project, whose dedication, cooperation, and enthusiasm contributed to the success of the project. Their names are mentioned in the individual programs cited in this report.

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INTRODUCTION

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PREFACE

Once, a few months ago, there was an angry Indian boy--a sixth grader, who hated school, hated society, sneered at teachers, and provoked hassles with his peers. He attended class, but he wasn't there. He wouldn't study; he wouldn't work; he wouldn't talk. The only thing he did was fight.

Then, slowly, gradually, something began to happen to the Indian boy. It started when his two Mini-Grant teachers saw that he was a boy with tremendous artistic talent. They also saw that he had much to share with the class--his rich Indian heritage. Before he knew it, the boy was absorbed in writing and illustrating a book that the whole class was to enjoy. The book told of his grandfather and how he had earned his living by making beautiful silver necklaces, it told of his father and of others important to the boy. As the boy wrote and sketched, a good feeling grew inside of him--a pride in his heritage, a pride in his own work.

Today, the Indian boy is enthusiastic about school, he likes his teachers and cooperates with them. He no longer fights with peers, instead he offers them art lessons at a special round table in his classroom that is reserved for his new enterprise. (Cochiti, p.162)

This is just one of the exciting things that has been happening to students in the Mini-Grant Programs conducted

throughout Albuquerque Public Schools during the past year as a result of innovative programs with a career education focus. Teachers involved in these projects admit that they have never worked harder, nor found their work so rewarding. The rewards they cite are observable in the changes brought about in individual students--changes in attitudes toward school, work, society, and learning--changes in behavior patters, in self-concept, and in personal habits. The success of these programs has, as a matter of fact, far surpassed all expectations, as can be seen from the brief examples that follow.

PROJECT HIGHLIGHTS

--Special education students, who formerly could only read simple, three-letter words, now read and follow instructions for film development including such words as "dilute", "developer","agitate", "continuously", and "stirring rods". (Armijo, p.15)

--A junior high dropout returned to school so that he could take part in the program on small engine repair. (Wilson, p.95)

--In an after-hours career program, 70 of the original 72 registrants completed the program, without a single unexcused absence. (Embudo, p.81, 122, 140)

--Children who had never even seen what they looked like in a photograph, proudly learned to take and print pictures. (Barcelona, p.30)

--Members of a first grade class opened individual savings accounts at a bank with the $1.75 profit each earned in a popsicle sales enterprise. (Apache, p. 144)

--After only 15 hours of typing instruction, a ten year old girl achieved a typing speed of 45 w/p/m and has been accepted as a summer student in a local business college. (Baker, p.136)

--A program called "Happiness is Friday" involved parent volunteers who came in weekly to instruct 30 classes of 20 different career elective activities. (Armijo, p.11, 6, 68)

--A boy considered to be "Student Trouble-maker No.1" became so involved in music and science activities in his open concept classroom that he now appears to be a model of good behavior. (Sierra Vista, p. 191)

--First graders play the roles of beautician, doctor, nurse, carpenter, and cook using real tools of the trade from their Prop Boxes. (Armijo, p. 155)

--A student opened his own classroom travel agency and has so much business he had to hire a secretary from the student organized employment bureau to assist him. (Cochiti, p. 162)

--A fourth grade boy designed and wired a listening center with head phones and tape recorders for the use of his classmates. (Mitchell, p. 183)

--A class in leather work found the business of making and marketing wristwatch bands to be a lucrative venture, and they returned the profits to the leather fund to purchase materials for future classes. (Larrazolo, p. 88)

--A mother of a sixth grade boy called school to find out what had suddenly changed her son and made him so independent--he had started waking himself in the morning, fixing his own breakfast, and going to bed at night without being told. (Cochiti, p. 162)

--Students in a class in Mass Communication wrote, produced, directed, filmed and edited their own TV version of "Macbeth". (Barcelona, p. 30)

--A first grade student learning how to use a pottery wheel created a beautiful large bowl equal to any you might find in a crafts shop. (Apache, p. 144)

--A fifth grade boy who had nothing going for him discovered something good about himself. He has a green thumb when it comes to gardening. (La Luz, p. 109)

--Two student foremen of a woodworking shop not only learned the necessity of safety rules and how to care for tools, but also how to supervise other workers. (Apache, p. 144)

--A fourth grade class visiting the Rehabilitation Center had an opportunity to tutor the handicapped children. (Mitchell, p. 183)

--Students at Matheson Park made and sold rubber stamps with catchy phrases on them. Proceeds of the sales purchased an aquarium for the children's ward at Bataan Hospital. (Matheson Park, p. 173)

--A girl who was afraid to go on a field trip on the Tramway, overcame her fear so that she could go and take pictures for the class photography program. (Armijo, p. 25)

--On a tour of a hospital, a group of students interested in medical careers witnessed two surgical operations. (Matheson Park, p. 173)

--Esperanza students who seemingly were unable to succeed in math class, were able to master the math concepts in order to learn drafting. They were consequently given math credit for work in the drafting course. (Esperanza, p. 85)

--Students in a crafts program developed such respect for tools and equipment that not a single tool was lost or stolen. (Adams, p. 1)

--Students in a sewing class, allowed $5.50 each to purchase materials and patterns, overwhelmingly chose to make hot pants (girls) and muscle shirts (boys). (Embudo, p. 122)

--Two teachers rejected new job offers for next year in order that they might continue and expand the Mini-Grant projects they have begun.

CAREER EXPERIENCES

The majority of the career education projects were primarily experience centered--designed to provide numerous and varied opportunities for students to discover new interests and abilities and to present activities in which students might know the feeling of success. A partial list of these activities follows:

music
dancing
painting
photography
TV production
motion picture making
writing and research
gardening
woodworking
metalworking
small engine mechanics
drafting
typing
bookkeeping
business management
electric wiring
job application procedures
leatherwork
ceramics
puppetry
jewelry making
pottery
rubber stamp making
floral design & arrangement
weaving
lace making
comparative shopping
sewing
cooking
banking
child care
tutoring
salesmanship
management-employee relations

PROJECT METHODS AND MANAGEMENT

The career education Mini-Grant programs described in this report have been conducted within different kinds of instructional settings including:

--single teacher-centered classrooms
--single open concept classrooms
--combined classes (whole grades or combinations of different grades in open situations)
--Friday afternoon elective courses
--after hours elective courses

Some of the projects have focused on a single career activity; some have emphasized career awareness, concentrating on field trips and interviews, with a minimal emphasis on hands-on experiences; others have taken a total career education approach centering most curriculum learning around career experiences. Each project, its methods and activities, is fully outlined in the individual reports.

RESULTS

In a career education approach we have seen that learning becomes a means to an end rather than an end in itself. And to the kids involved in these Mini-Grant experiences, education suddenly began to make sense. For example, students quickly grasped the importance of knowing how to work with fractions when confronted with following recipes in a cooking lab. Slow readers mastered difficult reading sequences when it was necessary to read instructions in order to build a bird house or develop film in a darkroom. First graders quickly caught on to the fundamentals of cardinal numbers, addition and subtraction when involved in a popsicle selling venture--especially as they knew profits were to be divided among the class members.

Classroom activities such as these seem to make it clear to students <u>why</u> they need to know the basics. They can see that curriculum concepts are the tools they need to perform challenging and meaningful work, and learning becomes desirable. As a result many "slow" students have been able to shorten the gap between themselves and the "fast" students. Those who used to whine, "I can't", when faced with a new task, have proven to themselves that "they can". The lethargic have become enthusiastic. Many who were serious "discipline problems" have ceased to agitate. As a matter of fact, there was general agreement among the Mini-Grant teachers that discipline problems were almost non-existent.

A visitor to the career projects would notice several surprising things not usually observable in the traditionally oriented classroom:

--a certain open friendliness and spontaneity of students toward visitors

--a geniune excitement on the part of students and teachers about the things they are doing

--a constant hum of quiet voices in a buzz of constructive activity

--an absence of fooling around

--an absence of idleness or daydreaming

--an absence of the sound of a teacher's voice commanding "do this" or "don't do that"

--a recess bell rings, but there is no noisy stampede of children leaving. Some students quietly exit, almost unnoticed. As many as one-third may chose to remain in the classroom to work on favorite activities or even to read a book. When recess ends, students unobtrusively return and quietly resume work.

In short, a visitor would notice an almost adult-like climate of students doing the work expected of them, of students quietly helping other students--an atmosphere more in keeping with a large, well-run business office than a school classroom.

Effect on the Community

Teachers of Mini-Grant projects report that their programs have also made an impact on parents and the community. They find an interest and eagerness on the part of parents and businesses to participate in the career programs. As a result,

many parents have volunteered time as speakers or teachers of special skills. Similarily, businesses have opened their doors to field trips and spent time briefing students about different careers. Frequently they have also donated equipment needed by the school such as ranges for cooking and small motors to work on.

Effect on the School

Furthermore, it is noted that the whole school community has been effected by these career projects. Students not now involved are clamouring to be included. Teachers not now a part of the program are asking how they can initiate similar programs. Principals look at the programs with pride and make the observation that "remarkable things have happened" and funds or no funds, the programs somehow must be continued.

RECOMMENDATIONS

At the conclusion of the school year, teachers of the experimental programs met in Area meetings to discuss final results and to identify problems which were to be anticipated in the new projects. Almost with one voice, teachers cited the following shortcomings that would need solutions:

--late disbursement of funds caused delay in purchasing supplies and implementing programs

--lack of space, particularly for separate "noisy" rooms for sewing machines, woodworking, etc.

--lack of time for planning, for arranging field trips and speakers, for purchasing supplies, and for collecting materials from such unlikely places as military discard piles

--lack of funds for equipment and consumable supplies

The Mini-Grant teachers also voiced these concerns for the future:

--Would funding be available for continuation and expansion of the programs next year, or would all these good things have to be dropped?

--Would they have adequate warning to prepare proposals and make plans for next year's projects if funds are available?

--What will happen to students who have participated in career education projects next year if they must go back to traditionally curriculum oriented classrooms?

--What will happen to the students who have already learned the basic skills as typing, woodworking, sewing, cooking, etc. when they go on to Junior High. What continuation are the higher schools prepared to offer in career education?

SUMMARY

A poster in a Mini-Grant classroom offers the following words of inspiration:

"Some people dream of wonderful things
Then they do what they can
To make the dream come true.

Make up a wonderful dream that you
Would like to have come true."

And that is what this report is all about--dreams that are coming true. When one Indian student changes from a totally hostile being into a happy, cooperative member of his school society, when one Junior high dropout returns to school, or when one fifth grade boy discovers something good about himself for the first time in his life, then educators' dreams are coming true.

But these good things didn't happen accidentally. They are the result of long, hard, dedicated, nitty-gritty planning and work. The Mini-Grants provided the material assistance; the teachers' dreams sparked the innovations. Their techniques and diverse methods are recorded in the following pages. These reports are the patterns--blueprints that led to educational programs that were largely successful, because they reached into the lives of so many students and helped them find a new and better way to go.

It appears that in the future, these patterns will continue to be models--models for other teachers to follow, models on which to build and expand, because as one teacher summed it up, "We've only just begun."

SECTION II

ARTS and CRAFTS

(Includes projects with primary emphasis on creative art, photography, ceramics, leatherwork, weaving, jewelry making, etc.)

TITLE: MINI-PRODUCTION, MANAGEMENT, AND DISTRIBUTION PROGRAM

SCHOOL: John Adams Middle School

COORDINATOR: Elizabeth Kimmell, Crafts Instructor

PURPOSE:

1) To acquaint students with the work of many fine craftsmen in New Mexico who totally or partially support themselves by designing and creating distinctive crafts.

2) To give students vocational training in the production and marketing of crafts such as sculpture, jewelry, ceramics, and textiles.

3) To instruct students in keeping accounts of materials, costs, time, labor, and marketing.

4) To provide opportunity for students from low socio-economic area to earn money by marketing their products.

OBJECTIVES: Through this program, students will:

1) Develop self respect, self confidence and self dependence.

2) Develop the ability to solve problems, share ideas, discover and develop their unique potentials.

3) Have immediate rewards for their efforts.

4) Develop a means of partially or wholly supporting themselves.

5) Develop pride in their own achievements and in the achievements of others.

6) Develop respect for and a desire to care for tools and materials.

PROJECT DESCRIPTION

People Involved. Two classes, each of which met one hour daily five days a week. Additionally, students worked on Saturdays when they wished to. A total of 86 eighth grade students, ranging in age from thirteen to fifteen. Many were low academic achievers and potential drop outs. The large majority came from low socio-economic level (70% on welfare assistance).

Facilities. A large craft room with nine electrical outlets, one kiln, two large enameling ovens with thermostats, three small enameling ovens, buffer and grinder, and gas tanks for welding the tools and equipment for production.

PROJECT METHODOLOGY

Students were instructed in small groups working in special areas by demonstration, discussion, and posters which outlined detailed step-by-step procedures.

An assembly line technique was employed, with students choosing their own work locations.

Subject areas covered were copper enameling, silver and copper jewelry, Batik, sculpture, weaving and macrome.

Students kept inventory of supplies, computed cost of materials, time, labor and profits. Products were priced and then marketed by the students in school sales and in a local floral shop. Students earned the proceeds from their sales.

Field Trips.

Trip #1 -- Visited a craftsman who makes picture frames and started his own business in his back yard;
a potter in his shop;
Old Town for the N.M. Art League's Church Street artist sale

Trip #2 -- Visited the Levi Strauss and Co. plant;
an upholstery shop;
Kings Navajo Village, to see Indians make jewelry

EVALUATION

A pre test was given at the beginning of the program. It included questions such as:

1. What does your father do for a living?
2. Has your family ever lived on welfare?
3. What do you want to work at when you grow up?
4. Have you ever had a job?
5. Is there any skill you have now to make extra spending money?
6. Are you interested in working now?

When the post test was given at the end of the program, tests indicated that attitudes of the students had changed and all objectives had been met. Students were also asked to express in writing their evaluation of the program. Comments were enthusiastic and similar to this student comment, "The Mini-Grant taught me that people can earn a living by making their own things and sell them for money".

Conclusion.

The students working on this program have respect and self dependence which I have never seen in my other classes. They work

well together as a group and team. They share responsibilities. Before this project began many students were shy and lost in the class. Now all the students are equal and responsible. The students unique potentials are out and they assert their wills in solving problems.

Mini grant students have developed respect for equipment and tools. I stopped checking tools out and in during the second week and nothing was stolen or lost. I could not do this with my other class nor have I ever been able to before.

The first time in four years almost all my students working in the mini-grant will be getting an A. The students enthusiasm and hard work leaves nothing more to be desired. My students and I thank you for giving us this opportunity.

RECOMMENDATIONS

1. We had difficulty with adequate electric wiring to feed the ovens. Suggest that a project such as this do some rewiring first.
2. Materials should be ordered before September to get the optimum benefit.
3. Smaller classes would provide more work space per student.

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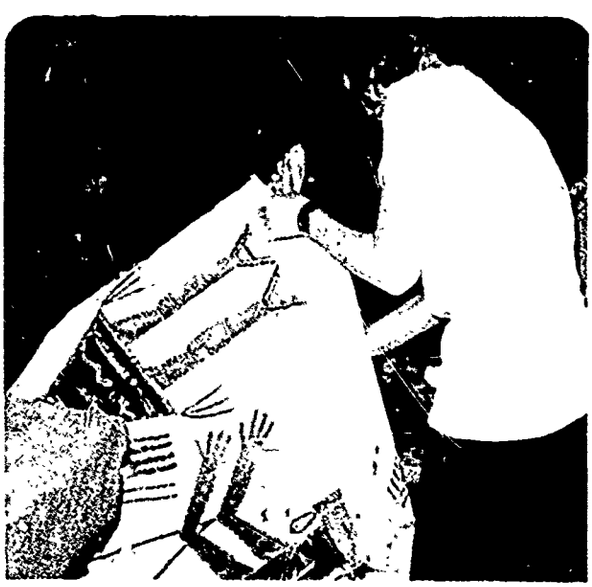
BUDGET

Rio Grande Jewelry	Silver and copper ring supplies	83.71
American Handicraft	Copper enamel supplies	62.55
Arts and Craft Mart	Jute	30.00
Craft and Yarn Shop	Wax and yarn	30.02
Economy Handicrafts	Copper enamel supplies	259.35
Field Trips		48.00
	Total	$513.63



TITLE: ADVENTURE IN ART

SCHOOL: Armijo Elementary

COORDINATOR: Vicki Rodgers

PROJECT ASSESSMENT:

Nature of problem prior to Mini-Grant Application.

How to encourage the expression of individual creativity and the development of painting skills while at the same time instill an awareness of the wide range of occupational options open in the field of art.

Hypotheses and rationale for solution.

Children can be highly creative when given the proper guidance and encouragement. With interested adult instruction they develop painting skills and learn the proper care of equipment. They also become aware of the opportunities open to them in the field of art.

OBJECTIVES: The students will learn

1) How to use different brushes and brush sizes for certain effects.
2) How to mix colors.
3) How to block in a painting on canvas.
4) How to follow instruction books.
5) How to cooperate with others.
6) How to sketch with charcoal out of doors.
7) How to enjoy using water colors.

Criterion Measurements.

1) Has student developed brush skills?

2) Has he learned proper color mixing?

3) Does he know how to block in painting on canvas?

4) Does he follow instructions?

5) Does he comprehend the meaning of perspective?

6) Is he beginning to understand how to sketch with charcoal.

7) Has he become aware of himself as a creative individual?

8) Has he become aware of the varied careers in art?

9) Has he learned to benefit by cooperating with others?

PROJECT DESCRIPTION

People Involved. Twenty-six students Kindergarten thru 5th grade. Classes met one hour and forty-five minutes a week on Friday afternoon in two six-week sessions. Staff included one artist head teacher (Mrs. Vicki Rodgers), One artist assistant (Mrs. Patt Geiger), One teacher-aide (Mrs. Eloisa Gutierrez) and One artist advisor (Mrs. Lenora Hatten).

Facilities. Kindergarten classroom size 33' by 30'.

PROJECT METHODOLOGY

The first class of the six weeks went on a field trip to the New Mexico Old Town Art League Gallery. The second class was spent in getting acquainted with charcoal sketching outdoors. The third class was devoted to color mixing with water colors, and the fourth class was spent in planning the painting they were going to do on canvas. Then they painted their canvas the last two classes.

Every child paints a different painting. They are encouraged to paint something they'll enjoy and that will be an expression of themselves. With adult guidance they are shown how to put their ideas on canvas. Some children were allowed to take home left over paints to work on extra paintings. They were encouraged to branch out on their own.

EVALUATION

Children were tested orally on how to mix colors, how much oil and turpentine to mix with paints, and what kind of brush to use for certain effects. Their performance with charcoal and paint proved their ability with sketching and composition.

Teachers, parents and visitors were amazed at how well the students have painted in such a short period of time.

Conclusion.

When a child is expected to be creative and is looked upon as a creative individual, his performance will be outstanding. The children's interest and enthusiasm has been boundless. With the proper guidance in acquiring painting skills kindergarten through fifth grade children work well together. The older children help the younger children. Hopefully we have instilled an awareness of the wide range of occupational opportunities in the field of art.

SUGGESTIONS AND RECOMMENDATIONS

1) With the younger students and some special education students we found it necessary to allow frequent breaks because of short attention span.

2) When working with oil paints, children should have smocks to wear to protect clothing.

3) More parent volunteers would be helpful.

BIBLIOGRAPHY

Walter Foster series of beginning painting and sketching books.

ACKNOWLEDGEMENT

Leonora Hatten, New Mexico landscape artist.

BUDGET

Materials for paints, canvas, easels, pallettes, brushes etc.

Langell Art Supply $181.42

TITLE: INTRODUCTION TO POTTERY AND CERAMICS

SCHOOL: Armijo Elementary

COORDINATOR: Carlos L. Duran

PROJECT ASSESSMENT

Nature of the Problem.

We have to introduce and give interested children the opportunity to work and be creative with different media so that they can enjoy the esthetics and nature of materials.

Hypothesis and rationale for solution.

When children are given the opportunity to experiment and create under free and guided conditions with proper materials they are able to appreciate and create.

OBJECTIVES: The students will learn

1) The nature of materials.

2) The chemical composition of clay.

3) To share responsibilities and materials and tools.

4) To work with others and clean up after work.

5) To express themselves through different media and express their creativity.

PROJECT DESCRIPTION

People Involved. First 6 week period there were 35 students with two teachers and one parent assisting. The second 6 week

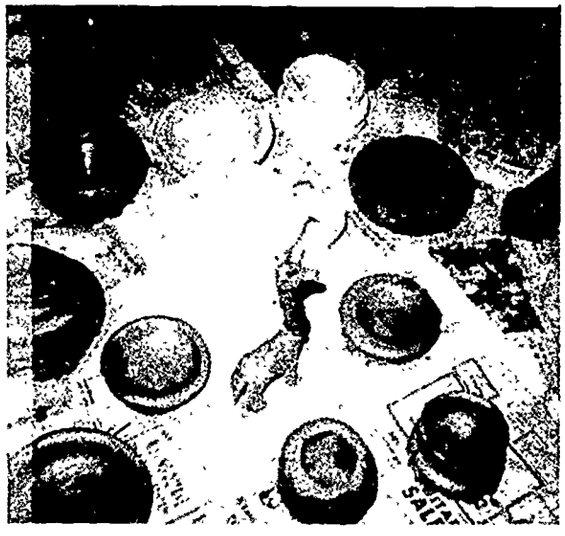
period there were 25 students ranging from Kindergarten to fifth grade level with two teachers, one parent and two Rio Grande High School students assisting.

Facilities. This project was conducted at Armijo School in the new building which consists of a pod with water and sinks.

PROJECT METHODOLOGY

This project was carried out for a period of twelve weeks. Tables with proper materials were set out for students to use at each period. Lesson plans were followed to present the different procedures and techniques in the proper sequence. For example, when working with very young children, the first lessons were about what clay is made of and the feel of the material. The first assignment was to make a smooth ball of clay. Then students progressed to learning the use of the potters wheel with enough adult supervision so that each child would be successful.

Using the Potters wheel.



Things we made.

EVALUATION

Because many of the children involved were young, evaluation was conducted by observation and interview. The following are some student reactions and statements made during interviews:

"I made a hen and a rooster and the hen had eggs on its back. On the potters wheel I made a bowl and I was just now glazing it green. It makes me feel happy." (Second grader)

"Its fun to play with. Its gooey stuff. Sometimes you get to show off with it when you make good stuff. Its also one of my favorite things to do." (Fifth grader)

"I made an owl with yellow eyes." (First grader)

"I like pottery a lot because there are a lot of interesting things to do and a lot to see and learn, pottery is the best." (Second grader)

Conclusion. Many of the children developed talents they never thought they had. Each student had a certain degree of success. Many stated they would like to try more if given the opportunity. Other students in school shared the same feelings. By observation we saw improvement in behavior and attitudes.

ACKNOWLEDGEMENTS

1) Rio Grande High School Students
   Lorraine Torres
   Lee Anzures

2) Armijo Staff
   Trudy McDowell

3) Community
   Mrs. William J. Young (Ann) Grandparent

BUDGET

Supplies included:	Brush Art Flat Cer. Clay Moist Assorted ceramic glazes Fixatif Crepe Paper Wire Sandpaper	
	In the amount of:	$127.87
Sandia Studio	Kick Potter's Wheel	100.00
	Total	$ 227.87

TITLE: PHOTOGRAPHY: A WAY TO LEARN--A WAY TO EARN
or
NEGATIVE CAN BE POSITIVE WHEN YOU EARN MONEY WITH PHOTOGRAPHY

SCHOOL: Armijo Elementary

COORDINATOR: Rosemary Hillemeyer

PROJECT ASSESSMENT

Nature of the problem. The mini-grant was applied for because of the particular needs of the children in my class, They are labeled "educable mentally retarded" or "educationally handicapped." They also come from the lower socio-economic area of Albuquerque, and are Spanish-American.

Because they are in a special class, these children obviously had not been able to succeed nor survive in the norm with their peers. This suggests failure in any situation other than a special class.

Although surrounded by both Spanish and English conversation, the usual positive aspect of bi-lingualism has been unable to manifest itself in this situation and the result was an inability to communicate adequately, orally or written, in Spanish or English.

Hypotheses and rationale for solution. The photography grant, then, offered a way out of the whirlpool of failure and a way into the dark----room, that is, and a new approach to learning and

training for earning in addition to the myriad side effects not anticipated, but definitely important advantages. As an example, the following points are given: the children acquired much more positive self-concepts when they realized they were the recipients of a grant; they saw themselves in many perspectives via photos of themselves, in, around, and with others at the school. They acquired unmeasurable amounts of prestige with the other children at school, their families and the community due to their access to cameras and the darkroom. Success in learning, and valuable experience in a possible job area for the future were bargained for when applying for this grant.

OBJECTIVES: Students were expected to be able to learn to:

1) load an instamatic camera

2) focus on a subject through the viewfinder

3) press the trigger, thereby taking the picture

4) wind the film, and when completed, remove the cartridge

5) mix, measure, and maintain the necessary chemicals and darkroom rools and equipment

6) learn the procedures for loading film in development tank and developing it

7) make contact prints from negatives after developing film

8) select good negatives from prints for enlarging

9) make enlargements using enlarger and print developing process

10) determine exposure and development variables necessary to make best possible print

11) operate the print washer

12) operate the print dryer

13) use the tacking iron, mat boards, dry mount tissue and laminator for mounting the good, finished print for exhibition readiness

14) evaluate the finished product in terms of technical and aesthetic qualities, simultaneously determining what qualities are positive, which are negative and what caused the final result

15) apply this knowledge to the uses of photography in ones life as a means of earning a living, and/or as a method of learning reading, socialization, math, science, art, etc.

16) take pictures meaningful to the individual taking the picture, as well as specific assigned subjects, and being able to limit the number of pictures taken when so requested to do

17) take proper care of equipment and materials

18) share equipment

19) recognize the use of all photographic media such as movies, slides, filmstrips, art shows, newspapers, books, X-rays etc.

20) apply this training to their personal and school social lives assuming the responsibilities of becoming school reporters, etc.

21) create an acceptable final product either for self-fulfillment or for an employer.

Additionally, innumerable skills will be mastered that cover a great spectrum of muscular, visual, auditory, perceptive and social abilities. For example, students will be able to:

1) know left from right in order to turn on and off a hotplate needed in the darkroom.

2) fill a pan with liquid, carry and stir the contents without spilling.

3) attach a bottle opener and open a can of developer

and so on..... Many skills that will be acquired by these students are skills readily at hand to other children, but difficult for these special students.

PROJECT DESCRIPTION

People Involved. 15 special education students, 26 fourth grade students from another class, and 1 fifth grade student with a special interest in photography. Two teachers, Pam Stiebler, fourth grade teacher, and R. Hillemeyer, and a teacher aide.

Facilities. The darkroom was set up in one of the men's restrooms in a building apart from the classroom building. It is about 5' by 7' in area, however restroom facilities remained, taking up a great deal of the space. When darkroom work was not necessary, work was conducted in classroom, playground areas and on field trips.

PROJECT METHODOLOGY

Instructional setting. Actual hours in the darkroom were limited by having to work in shifts of about five students in a group at one time. However, from November on, practically all teaching was done through the various facets of photography from time and temperature work, to light-dark contrast, to measurement (linear and volume).

Teaching methods. Discovery learning was used initially. For example, I was having trouble getting the print washer to work without leaking, so it was brought into the classroom and placed by the sink, and I asked the children to try to get it to work without leaking. After some experimentation and spilled water, they solved the problem by changing the angle of one of the connective hoses.

For each new experience, the process was worked through with the individual from start to finish using his own work, so that the first final product he saw was his own. Supervision, especially where the chemicals were concerned, was always there, and signs, charts, labels and directions in sequential order in the darkroom provided many reading experiences.

Activities.

1) Finding photographs in papers and magazines and books; sorting them to determine differences between black and white and color, photographs and drawings.

2) Making murals of black, white and gray colors

3) Mixing black and white paint to make gray--labeling colors.

4) Examining the film inside an instamatic film cartridge, to observe the tape, the variance in length of film paper and film and the size of holes to be able to tactilely separate the two in total darkness.

5) Practice darkroom procedures with exposed film and film paper and wind up reel.

6) Charts of how eye functions as opposed to how a camera works.

7) Books checked out by students on photography, light, rainbow, prisms, reflections.

8) Practice with cameras and taking pictures.

Field Trips

1) Cook's Camera Store

2) UNM Education Complex for photography exibition

3) Art Education Building, UNM, for tour of other art media

4) Rio Valley Greenhouse for photographing one of the phases of the class' involvement in gardening and ecology at Armijo.

Lab experiences

1) operating cameras (loading and unloading film)

2) developing film (loading and unloading developing tank)

3) photograms

4) contact prints

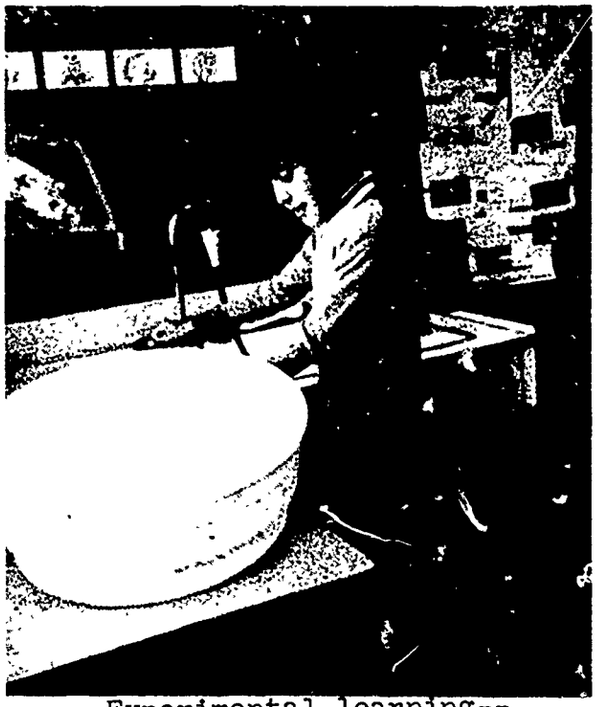
5) enlargements

6) prints

7) matting

SOME WORK SAMPLES

Planting



Experimental learning--
how to make the print washer
work

Photography Exhibition at UNM

EVALUATION

Criterion measures. A pre test (in the form of an interview) was administered, and subsequently followed by a post test at the end of the year. The test asked questions such as:

1. Does your family have a camera?
2. Do you have your own camera?
3. What do you do with a camera?
4. Name any parts of the camera.

Students were also asked to draw a camera, on both tests, and pictures compared. Remarkable improvement was noted on drawings.

At the beginning of the class only about one-half of the students had ever taken a photograph. At the beginning of the year, when asked if they liked to have their picture taken, most did not express positive feelings. This attitude has changed, indicating a greater positive feeling of self-concept. When students were asked if working in the darkroom was hard, they responded: "This isn't hard at all." "This is easy." "This is fun." "Is this all there is to it?"

Conclusion. Every student in the class knew success in filming, in darkroom work, and every student experienced a highly increased and more positive self-concept. Due to the novelty of the situation at school, the students were in a very prestigious circumstance which enabled them to stand out in a positive way to their peers, for the first time in the longest part of their school experience.

The good feelings about themselves and what they had done was seen most dramatically when we visited their exhibition at the University. The warm glow of achievement and success cannot be expressed in words; perhaps the pictures of the event will have captured some of that feeling. In all, they did not want to stop; they just wanted more. There was no special ed in the darkroom.

ACKNOWLEDGEMENTS

1) Jack Newsome, professional photographer

2) Ruth Ramberg, consultant, Cook's Sporting Goods

3) Cook's Sporting Goods

4) Margie Weinstein, helped children in darkroom

5) Mothers, sisters and bus drivers on field trips

6) Jimmie Lueder, Principal, Armijo Elementary

7) Jay Hardwick, UNM Art Ed Dept. (Conference at D.H.Lawrence Ranch) and arranged exhibit at UNM

8) Dick Dunatchik, UNM Anthropology Museum

9) Staff at Armijo Elementary--particularly the male faculty members who graciously relinquished the use of their restroom for our darkroom.

REFERENCE SOURCE

A booklet used for photographic instruction at the University of New Mexico was duplicated and used by the teachers as a guide in teaching darkroom and camera procedures.

BUDGET

10	44 Instamatic Cameras	$8.45 ea.	$84.50
1	Exacta Camera w/case	75.00	75.00
1	Durst 30C Mini Darkroom Kit		110.00
2	booklets made by students, 10 pages, both sides, sent to printer		100.00
	Additional darkroom maintainance, film, chemicals, print paper, tools, mat boards, lights etc.		130.50
		Total	$500.00

Aesthetic composition

TITLE: PHOTOGRAPHY--A HOBBY OR VOCATION

SCHOOL: Armijo Elementary

COORDINATOR: Prentiss Ann Stiebler, Fourth Grade Teacher

PROJECT ASSESSMENT

Nature of the problem. There is a need to encourage healthy work attitudes as well as introduce children to possible vocations and ways to use leisure time. Children need to learn skills that will prepare them for life. In order to do this they should be exposed to many kinds of successes in school. Through different kinds of experiences they will learn to think and to solve problems.

Hypotheses and rationale for solution. Children are intrigued with the workings of a camera and its resultant product. This is particularly true because phctography is usually considered an adult activity. By allowing children the use of cameras and by teaching them film development (which many adults do not know), they will feel that they can participate in an adult type activity and this will help them improve their own self-concept. I also felt that because many of these children were from a low economic level that they would not have the opportunity to discover this hobby or vocation by themselves. This grant has enabled them to learn another aspect of the world of work.

OBJECTIVES: The student will demonstrate the ability

1) to take clear, well balanced pictures

2) to pick an interesting subject

3) to use the correct terminology when working in the darkroom and with photos

4) to evaluate pictures and enlarge the desired photos

5) to name the parts of a camera, and the function of each part

PROJECT DESCRIPTION

People Involved. Thirty fourth graders from my class worked with fifteen students from a special education class. The fourth grade students were boys and girls between the ages of nine and eleven. There were two teachers. Outside consultants were also most helpful. And parents cooperated by loaning cameras.

Facilities. We worked in our classroom, on the playground, and in our darkroom. The darkroom was a converted restroom, and thus was quite small. Only about five could work there at one time. The darkroom was good in that it offered complete darkness, running water, and it was located away from the main stream of child traffic.

PROJECT METHODOLOGY

One of our major ongoing projects was that of student teams of two interviewing various persons. They took pictures and wrote about them. The write-ups were displayed on our WHO'S WHOOO board.

We had speakers who demonstrated the use of a camera and different kinds of pictures. Consultants from the University helped us with developing and printing contact sheets.

Curriculum concepts were usually woven into and around the subject of photography. In this way we studied time and temperature and measurement. Students improved their ability to express themselves on paper by writing evaluations of pictures the students took. Children who had so much trouble reading in the classroom had no difficulty reading the directions for developing and printing in the darkroom. From this experience, reading performance in the classroom picked up considerably.

Social studies was another area where photography worked itself in as a natural. When we took a field trip to the Sewage treatment plant, as a result of our study on pollution, each child had a camera and took pictures of the various processes. Then they made a picture story of how the sewage was treated.

The children loved making photograms, with objects of their own choosing.

This is the type of work displayed at UNM
Photogram

Field Trips.

1. Cook's Sporting Goods --Camera Department
2. Sewage Treatment Plant
3. KOB TV Station
4. Tramway

EVALUATION

Criterion Measures. To assess learning and attitude change I used mainly observation of children at work, listening to their conversations, a pre-test, post test and parental feedback. As an example of parent feedback, the parents of one child took their daughter on vacation, and while she was there, she took pictures of things which she thought were interesting and that the class would enjoy.

All the children now know the names of the camera parts and the functions of each. There was a significant change in self-concept as evidenced by the fact that on the post test every child said he enjoyed having his picture taken.

Parent reaction was extremely favorable. Many of the children in my room were given their own camera before the end of the project. One mother said she would be interested in setting up a dark room for her daughter.

I have noticed a definite change in the children's attitudes toward learning and attempting new things which frighten them. As an example, Joanne was afraid to go on the class trip on the Tramway. She thought it would be too scary. However, as a result

of her work in the darkroom developing film, and her awareness that things are not always as hard as they seem, she overcame her fear and went with us. The experience on the Tram proved not to be too scary so her new attitudes toward new experiences were reinforced.

The children have also found out that all work does not have to be boring and drudgery. It can be exciting and fun.

Conclusions. It is my feeling that the project has given my children a whole new outlook on work--that it is possible to choose a job that not only earns money, but is also enjoyable. The students have gained new insight into their own abilities to judge things and to evaluate their own work. This is a definite essential for later years in school and also in the work world. Some children who have not succeeded in many things in their life, and especially in school, have made great strides toward feeling good about themselves.

I have immensely enjoyed the project as have the children, and we are very thankful for having had this opportunity.

ACKNOWLEDGEMENTS, BIBLIOGRAPHY, AND BUDGET

See PHOTOGRAPHY--A WAY TO LEARN--A WAY TO EARN, pages 23, 24.

TITLE: INTRODUCTION TO MASS COMMUNICATION FIELDS

SCHOOL: Barcelona Elementary

COORDINATOR: Mary Lynne Perry, Art Center Coordinator

PROJECT ASSESSMENT

Nature of the Problem. The students involved in the Art Center decided that in addition to offering instruction in painting, drawing, and crafts, that we would also like to provide experiences and introductory techniques in photography, both as an art and as as example of a vocational skill. Although the Art Center is a joint project of Albuquerque Public Schools and the University of New Mexico, school funds were not available for materials needed to carry out this program without the aid of the Mini-Grant.

Hypotheses and rationale. Our rationale for this project was that by presenting techniques and experiences in the fields of photography and other mass communication areas we might interest children in pursuing a career in photography, movie making, and/or television.

OBJECTIVES: Students will learn

1) the parts of a simple camera and how to operate it.

2) the principles behind "film" and what chemicals are needed to develop black and white film.

3) how prints can be made from negatives and other objects.

4) to make and develop his own print.

5) and be able to discuss different job opportunities in the field of photography.

6) to make 16mm films by drawing on white leader film.

7) how video tape works and how to use a simple TV camera

8) and be able to discuss jobs available in films and TV

Methods for testing to determine whether these objectives have been met will be a pre and post test. Visual evidence should also be available in the items which the children produce.

PROJECT DESCRIPTION

People Involved. 200 students including first to sixth grade. Two student teachers, the Art Coordinator and several classroom teachers. Students are a mixture of Chicano, Anglo and a few Indian children. Some children in the early grades had never seen what they looked like in a picture.

Facilities. The Art Center is housed in a metal barracks building approximately the size of a regular classroom. The biggest drawback was the lack of running water. The school boiler room served as a darkroom.

PROJECT METHODOLOGY

Workshops were set up to teach different art media including, photography, ceramics, candlemaking, textiles and weaving, and plays and costuming. Students elected the group they wished to

attend for each six week session. Each learning category had two groups--one for students of first to fourth grade, and one for fifth and sixth grade. It was arranged that no more than two students from one classroom would be attending an art workshop at any one session, thus the classroom was not greatly disturbed.

In addition to the Art Workshops, two classes were involved in separate projects. A second grade went to the zoo and photographed the animals, and a sixth grade was involved in a story telling project using their own photographs.

In each six week course, the students were first given the pretest. Over the six week period they were taught the parts of a camera and how to use it. Students were given rolls of film and each had an opportunity to take a camera home for a day or two to take pictures of friends and family. Teachers developed film as students watched. However, students did make and develop their own prints from magazine pages and other objects.

Students made slides and films by drawing with magic marker on clear acetate and mounting them in slide mounts and by drawing on white 16mm leader film to make movies.

Students of the art program published a literary magazine which included poems, stories, and art work. Under close supervision students also had an opportunity to work with a borrowed TV camera and video tape.

Field Trips. There were several field trips that we took about once a month for three months. These included:

Tamarind Institute--lithography printing

KOB Television Studio

Zoo

University of New Mexico Museums

Photographed by a student at the Zoo

EVALUATION

Our pre test and post test were essentially the same with different wording. These are examples of the questions:

1. Name the parts of a camera.
2. What is video tape?
3. What kind of jobs are available for a photographer?

Pre test results with the younger children were almost zero. For students in grades 4, 5, and 6, we had a median of about 30% right answers.

On the post test for grades 4, 5, and 6 there was a median of 75% with scores ranging to 95%.

General observation of the students showed evident interest in this area. Teachers found that many more students than could be included wanted to be involved. Other evidence of the success of this project is seen in the photographs taken by students.

Conclusions. More than anything else this project and others in the art workshops are beginning to help erase some of the negative self images the children hold. Many children have found some degree of success in this area while they are struggling in their academic work.

The students were also made aware of other areas of vocational interest such as teaching, coaching, and jobs held by their parents.

PROBLEMS

One of our major problems was a shortage of cameras, even though some students furnished their own. Besides this, supplies such as film, and developing chemicals are consumable and additional funds would be required to continue this project in future years.

BUDGET

3 Field Trips	$50.00
Film	
Black/White (150 rolls)	69.00
Anscochrome (6 rolls)	18.00
Extachrome (50 rolls)	84.00
Developing Film (COLOR)	
Extachrome (50 rolls)	72.00
3 Ansochrome Kits	7.00
Color Prints (10)	10.00
Magic Markers (36)	23.00
Ditto Paper	8.00
2 Cameras and flash cubes	24.00
Developing Supplies	82.00
Clay (20 25 lb bags)	31.00
Starch 5 bottles	1.00
PVA 5 bottles	8.00

TITLE: VOCATIONAL LEATHERWOOK

SCHOOL: John Baker Elementary

COORDINATOR: Thomas D. Eddy, Teacher

PROJECT ASSESSMENT

Nature of the problem. Students had expressed a need and desire to explore this field. There were qualified teachers available, but there were no funds to purchase supplies and equipment for instruction.

Hypotheses and rationale. The solution to this problem was immediately apparent when funds became available to purchase tools and supplies.

OBJECTIVES: Students will:

1) have an awareness of the "World of Work" as it pertains to the field of leather.

2) be able to manipulate leather and tools.

3) obtain an awareness for the difficulty and appreciation of this Folk Art.

4) demonstrate improved muscle coordination in a new and unique way.

5) be exposed to other people who are skilled in this field and who use leather as a vocation or avocation.

Criterion Measures. An objective test will be administered to determine student's evaluation of people who work with leather or in the "greater field" of leather (i.e. secretaries, chemists, biologist

This test will partly be given by the student to an adult in the community. Another evaluation technique will be subjective discussions with students to determine their awareness of the DIGNITY OF WORK of all kinds. Students will conduct self-evaluation of their own work and its effect on their self-esteem.

PROJECT DESCRIPTION

People Involved. Enrollment for this class has been 80 students who are 4th and 5th graders from middle income families. A high school student who is using leatherwork as a well-paid avocation will act as a coach. And one assigned faculty member. The class was conducted from January through May.

Facilities. Open-spaced classroom and the use of a covered sidewalk outside of the building.

PROJECT METHODOLOGY

Instructional setting. There were two separate classes. Each class met for 35 minutes, 15 times.

Teaching Methods. Classes were taught in large groups, small groups and also there was individual instruction. Each student was allowed to progress at his own rate and attempt to teach himself. Students sought help when serious problems were encountered.

EVALUATION

There was a written final test--a take-home test involving the student in making value judgments. The test also surveys the student's

knowledge of the general leather work field. In addition, the instructor enlisted the help of other faculty members to observe and evaluate the students in the homeroom.

Conclusion. This project has been a resounding success. The community, school, and all people connected with it are most enthusiastic. Student interest is high. Unfortunately, there was no way to meet all the enrollment needs, and some students had to be disappointed when their registrations were turned down. There has been no negative student behavior during the project. Student performance was far above the expectation of the instructor.

Students View Film Looper
Designed for Attitude Building
in the "GREATER WORLD OF WORK"

RECOMMENDATIONS

More space to spread out would have been helpful. Also would have liked to provide classes for all students who wanted to participate.

BIBLIOGRAPHY

1. SRA World of Work Kit

2. Brochures from Tandy Leather Co.

3. Teaching aids from Tandy Company

ACKNOWLEDGEMENTS

APS Vocational Department and John Baker School Administration for guidance, and allowing this project to materialize.

BUDGET

30 Pounding Board	@$.45 ea.	$13.50
1 Storage Cabinet		50.00
Cabinet hardware & paint		25.00
Tools and Supplies (Tandy)		332.41

TITLE: VOCATIONAL AREAS OF FINE ARTS GRAPHICS AND PRINT MAKING

SCHOOL: Comanche Elementary

COORDINATOR: Philip Peterson, Student Teacher Coordinator

PROJECT ASSESSMENT

Nature of the Problem. There will always be a need for good artists, illustrators, book or media designers and other graphic specialists, yet much training and preparation in these areas is without the aesthetic awareness (plain good taste) and craftmanship that a Fine Arts background can provide. There is a need for this type of exposure in the early years of learning.

Hypotheses and rationale. A program in the art department which focused on vocational art areas would provide students a chance to learn some skills and appreciations associated with graphics.

OBJECTIVES: Students will be able to :

1) create designs with brayer and string and on woodcuts.
2) use the associated tools needed to produce designs.
3) develop an awareness of color relationships.
4) evaluate composition, drawing skills, and good workmanship.
5) operate a small proof printing press.
6) demonstrate knowledge of graphics related vocational opportunities

PROJECT DESCRIPTION

People Involved. One supervisor from UNM and two student teachers conducted instruction for 30 students of the fourth, fifth, and sixth grade who elected to take the course.

Facilities. The printing press was located in a general purpose room at Comanche School. The room was available most every afternoon and on Wednesday mornings.

PROJECT METHODOLOGY

The two student teachers used different approaches to the study. One started with teaching background information in the classroom, including composition, color use, drawing etc, and then proceeded to teaching how to use the printing press. The other approach began with instruction on using the press and taught background information as it came up. There was some indication that the second approach allowed for greater spontaneous creative expression and intrigued students at the very onset of the program.

EVALUATION

It was concluded that the program was quite successful in that all the students maintained interest and proved to themselves that each had a degree of talent in art work that he had not always realized. Many teachers were surprised by the degree of ability displayed by the students and their final products.

Activities. Chronological Outline followed by Structured Group

I. Drawing

a. Drawing lines

b. Blind contour

c. Contour

d. Perspective

II. Printing

a. String prints

b. Cardboard prints

c. Cloth prints

d. Word prints

e. Inner tube prints

III. Book making (Ditto combined with prints)

ACKNOWLEDGEMENTS

Student Teachers: Alan Neuman
Jerry Winter
Comanche Elementary Staff

BUDGET

25	drawing boards and pads	$ 25.00
	plus printing paper	50.00
3	rms. 12 x 18 heavy drawing paper	10.00
5	½ pt. cans, printers ink	25.00
50	linoleum blocks, 4 x 6	25.00
50	3m printing sheets 9 x 12	50.00
Cutting tools		30.00
25	plate glass sets (plexiglass)	5.00
15	soft rubber brayers	30.00
1	wringer press	10.00
1	lithography press	200.00
"How to" books		50.00
	Total	$525.00

TITLE: THE DEVELOPMENT OF CAREER AWARENESS THROUGH AN ART PROGRAM DESIGNED TO DEVELOP IMPROVED SELF-IMAGE AND MANUAL SKILLS

SCHOOL: Duranes Elementary

COORDINATOR: Vito Mierra, Principal
Assisted by Beverly Vogel, Asst. Professor of Art Education, University of New Mexico

PROJECT ASSESSMENT

Nature of the problem. The majority of the children of Duranes Elementary are from low socio-economic backgrounds, and mostly from minority cultures. These children often are underachievers, in that they do not perform up to their potential.

Hypotheses and rationale. It is believed that a central factor affecting the performance of these children is poor self-image. Their concept of themselves often is that of losers. They sometimes feel alienated from the academic school structure, perceiving it as alien to their lives, and representative of the "establishment," with which they cannot identify.

It was hypothesized that experiences with success might change these children's images of themselves positively. It was believed that a subject such as art might be the means of their achieving this success for two reasons. Art has the reputation of being fun, thus removing it from the onus with which academic work is viewed by these children. Second, because art is non-verbal, it bypasses the bi-lingual (or non-lingual) handicaps these children often have.

It was further felt that art would be a means of developing perceptual skills, and fine motor skills in these children. Also, it would provide them with creative recreational outlets and skills.

OBJECTIVES

1) To change the children's self-images in a more positive direction, and increase their expectations of success.

a. To offer projects which allow for good chances of successful completion.

b. To remove fears of failure by terminating the practice of grading art, and changing the resultant report card grade to a check mark for participation.

c. To develop in the child skills which would allow him to measure his own success.

d. To display all children's art work in the classroom, in the school, and at parent-attended art shows so that children might measure their success in the eyes of others.

e. To allow children to develop responsibility by allowing them guided freedom in choice of projects.

2) To develop percepual skills through means of projects which strengthen awareness of color, shape, texture, size, etc.

3) To develop fine motor skills through the means of projects which give them practice in manipulation of tools and materials which require exercise of such control.

4) To develop art skills which may be later used as recreational activities, or with further practice might become vocationally useful.

PROJECT DESCRIPTION

People Involved. All students of Duranes Elementary School grades 1-6 including students in Special Education classes. The students are largely of Chicano origin, although there are also Indians, Blacks, and Anglos in the school too.

Classroom teachers participated in order to learn new art skills. Five student teachers taught each semester in the Art Room under the direction of a coordinator, Mrs. Beverly Vogel, of the Art Education Department - Faculty. Pre-student teachers, 6 per semester, assisted as aides during the year.

A team of dance students and their instructor from U.N.M. came twice a week during the fall semester to teach Art Room students interested in combining art with dance. This culminated in a performance by Duranes students in which they choreographed their dances, designed and made their costumes and scenery, and danced.

Performers and speakers were scheduled throughout the year. In the cultural appreciation month of May an especially heavy concentration of such performers included a Spanish dance group, Mariachi musicians, guitarists, Indian Dancers and Country Music group. Also, a Spanish Sculptor, a Black Culture spokesman, and a Chicano woodcarver spoke to the children.

Facilities. The program was carried out in a standard classroom used solely for art. We created added shelves and display areas. We used old tables that could not be harmed. The room had a sink.

In addition, a kiln was located next door in a storeroom off the multi-purpose room, and additional storage space was available to the Art Room there.

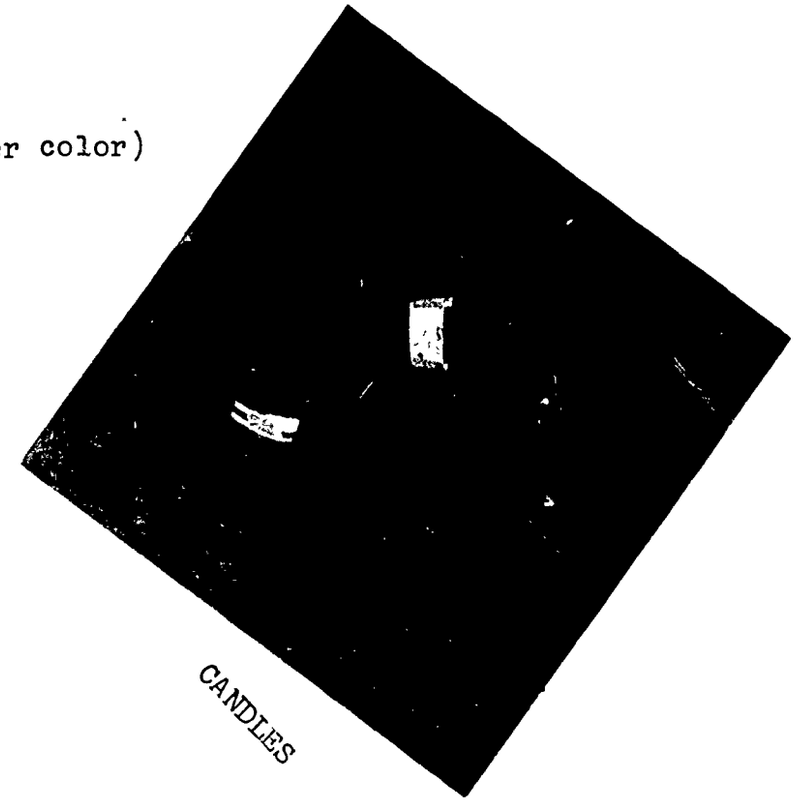
The multi-purpose room was often made available to art room students for extra space and large projects, and for dancing.

PROJECT METHODOLOGY

Instructional Methods and Procedures. The art room was open every day during school hours. Teachers signed up their classes at the inception of the semester for a time slot of 45 minutes to 1 hour per week.

Kinds of Subject Matter.

tie-dying
batiking
painting (tempera & water color)
wood construction
building with adobe
ceramics
clay sculpture
oil and water painting
hand-drawn films
chalk drawings
print-making
photography
wooden airplane construction



CANDLES

paper mache

murals

mobiles

kites

weaving

collages

cardboard and box construction

plaster casting

sand casting

candle-making

string painting

finger painting

bead and macaroni jewelry

tinfoil relief

wire jewelry

candy "stained windows"

outdoor sketching

crayon resist etc.

Weaving

Field Trips: We took one field trip to the mountains, but we made the trip without using Mini-Grant funds as we preferred to use these monies for art supplies.

EVALUATION

Testing procedures. A pre and post test system of evaluation was used. However, it was felt that no valid objective test existed which suited our purposes, but rather than subjective, experimental evaluation was needed to arrive at valid conclusions.

A set of 4 types of questionnaire was distributed in the fall semester. One questionnaire was designed for the classroom teacher, one for students, one for Art Room student teachers, and one for parents. The same questionnaires were then distributed to the same groups at the close of the academic year. Additionally, observation and interviews were noted.

Teachers were unanimously in favor of wanting to continue the Art Room in future years. When asked if they noticed changes in any of the pupils as a result of participation in the art activities, many teachers noted beneficial changes. "They have improved in ability to choose what they wish to do -- make decisions -- work on their own. They work more freely--more creatively".

The Student teachers noted the success in the project by citing the children's ability to try original projects rather than copying, showing a development of self confidence among the children.

The children displayed their enthusiasm for the Art Room in part by refusal to stay out of it! They were there morning, noon, and almost night. They gave up recesses and cut short lunch times to be there--even to scrub and clean up--anything to be there!

Students were intrigued by the informality of the Art Room, it's relaxed nature, the chance to call the student teachers by their given names.

Parental support to the program was such that although the first Duranes Art Show fell on the night of a major snowstorm, complete with traffic warnings to stay off the streets, more than 250 parents appeared at the show. The parents then actually participated eagerly in such activities as making group murals, tie-dying, etc.

Conclusion. From the results of the questionnaires, from parent and teacher observations, and from student behaviors, it appears the Art Room project was a success. Of course, the types of goals we sought are difficult to evaluate, the results not necessarily surfacing to be neatly observed. However, behaviors sometimes were seen to change, perceptions sharpened, and skills were learned.

RECOMMENDATIONS

A barracks room, apart from the other classrooms would make a more effective art room and allow for noise without worry about the class next door.

An after-school program for those students interested would be beneficial.

ACKNOWLEDGEMENTS

1. Principal, Instructional Staff of Duranes Elementary School
2. Secretarial and Custodial Staff of Duranes Elementary School
3. Department of Art Education, U.N.M.
4. APS Vocational Education Program
5. Students of Duranes Elementary School

BUDGET

Duranes Art Center Mini-Grant budget was $500.00

1. Supplies: A sample list:

construction paper
white drawing paper
clay
glazes
printer's ink, water-based
tempera (cake and powdered)
brushes
water colors
rulers
scissors
masking tape
pins
string
dye
vinegar
rubber bands
paraffin
chalk
wheat paste
Elmer's glue
wood (scraps and sheets and lengths)
nails
camera film
white leader film
magic markers
crayons
pencils
wire
cardboard
kraft paper
yard
molding plaster
sand
finger paint
finger paint paper
aluminum foil etc.

2. Tools: A sample list:

hand saw
coping saw and blades
pliers
wire cutters
hammers
brayers
5 instamatic cameras

TITLE: A CAREER PROGRAM TO DEVELOP ARTS AND CRAFTS

SCHOOL: Lavaland Elementary

COORDINATOR: Mrs. Joan Edmonds, Teacher
Kathryn Pelphrey, North area art coordinator

PROJECT ASSESSMENT

Nature of the Problem. Some of our underachievers and problem students never, or rarely, experience success during their school life, and are unaware of their abilities. This sense of "....failure destroys intelligence".

Hypotheses and rationale. It is anticipated that many low achievers and problem children with learning potential will improve in both behavior and academically, if they are bombarded with successes which change their negative self-images into more positive ones. It is felt that an arts and crafts program would allow for many successes and furthermore might lead some children into career opportunities they had not thought about.

OBJECTIVES:

1) To change the negative self-image to a more positive one, so students will feel they are of value and can succeed in the things they choose to do.

2) Develop competence in solving problems.

3) Develop skills in varied processes.

4) Relate skills and knowledge toward intended careers.

5) Develop appreciations and respect for beauty, any job well done, materials, equipment, property, achievements--their own and others.

6) Help them see that they are responsible for their own actions.

7) Help develop good attitudes toward the working world in any occupation.

8) Help associate enjoyment with work.

9) Develop good use of time.

PROJECT DESCRIPTION

People Involved. Approximately 500 third, fourth and fifth graders, ages 9 through 12. One parent participated every Monday and two students from the University of New Mexico helped once a week.

Facilities. A portable classroom was used for the program equiped with a sink, work tables, kilns, etc.

PROJECT METHODOLOGY

Activities included painting, finger painting, clay, sculpture, decoupage, sand casting, weaving, block printing, silk screening, copper enameling, tie dyeing, candle making, drawing, macrame, material design, paper batik, aestheometry, paper mosaic, wax resist, crayon transparencies.

Our project was carried out in conjunction with Kathryn Pelphrey, North Area art coordinator who instructed through the use of slides of the work of local craftsmen, and tapes of interviews with them.

Along with the crafts program, upper grade children have been making use of the SRA careers kit and integrating this study with the vocational arts program.

Showing off our work

Brushing glaze on pottery

EVALUATION

No testing was conducted. Evaluation was made on the basis of children's expressions and interpretations in materials. From these observations growth was evidenced. Students also learned to make the best use of time so that their work could be a success. Students also realized how many opportunities were available to them in the working world by being able to work with so many different kinds of materials.

The program has been a success and we would recommend the program be continued with even greater emphasis on career development and some of the industrial arts.

BUDGET

This project was budgeted $500.00 and used the following materials and tools:.

Paper, papier mache, wood, scrap wood, shellac, clay, ceramic glazes, sand, plaster, vermiculite, fabrics, textures, stones, cooper, cardboard, cords, yarn, threads, silk, paints, brushes, hammers, nails, wire, wire snippers, inks, wax, dyes, enamels, bark, seeds, chalk, stencils.

TITLE: A CREATIVE ART AND VOCATIONAL CRAFTS PROGRAM

SCHOOL: 32 North Area Schools

COORDINATOR: Kathryn Pelphrey, Art Coordinator, North Area, APS

PROJECT ASSESSMENT

Nature of the Problem. In too many schools, creative vocational crafts and arts and crafts are not recognized as a necessary part of the curriculum. Yet, it is chiefly through the use of their hands that many of our low achievers who are predominantly kinaesthetically inclined can succeed. These children desperately need to succeed so they know that they have worth, are an important part of their class and world, and can make positive contributions to them.

Hypotheses and rationale. That many potential dropouts and under achievers can change their negative attitudes about themselves to more positive ones, simply by engaging in activities in which they quickly achieve enjoyment and success.

That when children whose self-image was negative have changed the image to a positive one, they will no longer need to feel defensive. Their social behavior will improve, and many will go on to finish high school and beyond.

OBJECTIVES: This program will begin to develop feelings of:

1) Competence, self-confidence and self-dependence

2) Self-respect

3) Respect for others and for the achievements of others

4) Respect for materials and property

This program will also help develop ability to:

1) Solve problems as they arise in their work

2) Share ideas

3) Discover and develop their own unique potential

4) Recognize their responsibility for developing this potential

5) Recognize there is dignity and satisfaction in a job well done.

6) Accept the responsibility for their own actions.

PROJECT DESCRIPTION

People Involved. Fourth, fifth and sixth graders in the North Area of Albuquerque Public Schools, and approximately 550 elementary teachers and Jr. High art teachers.

Needs. As it is impossible for me to personally assist all of the above named individuals, this program has helped me reach many of them. To this purpose over 400 slides and tapes of several craft processes have been made and circulated to the different schools, thus providing them with instruction. In addition to the "how to" material, slides and tapes have been made about New Mexico artists and craftsmen who make a career of their art, in order to expose students to the many career possibilities in the field of arts and crafts.

PROJECT METHODOLOGY

The slides and tapes have been used in small groups or by the whole class at once.

It was expected that this program would also enhance curriculum learning concepts. For example, students would learn bookkeeping by figuring his time, cost of materials, profits etc. in the event that some craft products might be sold. Students will learn to read directions, take measurements, etc.

Students were instructed as to career possibilites related to different arts and craft. For example, Graphic arts is used in these careers:

Advertising design
Magazines, newspapers, etc.--layout
Poster making
Photography
Commercial advertising on TV or Movies
Lettering and printing
Sign making, including neon signs (electrical engineering)
Calligraphy

EVALUATION

Appraising the work done by students and noting improvements must necessarily be the responsibility of teachers in the individual schools who work directly with the students. Some of these results can be seen in other reports of projects.

BUDGET

To make 32 or more lessons, 5 of each complete lesson:

160 cassett tapes	@ $1.60	$256.00
34 rolls color film & processing	@ $5.87	200.00
	Total	$456.00

TITLE: PHOTOGRAPHY--A METHOD FOR AESTHETIC EXPRESSION IN AN ELEMENTARY SCHOOL SETTING

SCHOOL: Stronghurst Elementary

COORDINATOR: Mrs. Ruth Baker, Principal
Joe Apao, Teacher

PROJECT ASSESSMENT

Nature of the Problem. The utilization of photography as a teaching method is one which has idealistically been termed a "useful method of instruction." However, in contrast to its idealness, very little about the process seems to have been done beforehand to transmit this "ideal method" into a "reality" with upper elementary children. Several reasons, perhaps, might have accounted for this; no less of which were funds, materials and the expensive and technical nature of photography equipment.

Hypotheses and rationale. The development of cheaper yet versatile photographic equipment as well as an ease of handling techniques has put this medium into the level of the elementary instructional realm. With the support of funding by the State Department of Vocational Education, it has become possible for us to transmit the "idealness" of photography in our school to the "reality" which has escaped it as a teaching tool. It was our desire in the initiation of this project to be able to develop in our children a continuing interest in photography as a future career orientation.

OBJECTIVES:

1) To provide a situation where upper grade elementary children would experience all phases of photograpny from taking pictures to developing and printing.

2) To provide an avenue of interest through involvement in a manual - vocational skill.

3) To provide children an opportunity to develop a positive attitude towards work.

4) To provide children with activities and instruction which may possibly lead to preparation for a future career.

PROJECT DESCRIPTION

People Involved. Fifth and Sixth grade children, the majority of these from a low socio-economic background. Sessions were conducted in groups of 12 and each session ran for five weeks of instruction. We had assistance from the following persons from the University of New Mexico, Department of Art Education: Miss Janet E. Hoelzel, primary cordinator, Mr. Ivan Wright, and Mr. Phil Peterson.

Facilities. In addition to a regular classroom and the school yard, we were allowed use of a darkroom at Menaul High School. Students shot pictures through the community, at their homes, and at Menaul School.

PROJECT METHODOLOGY

A variety of different activities were planned to take place every Thursday afternoon of the school year. Children were allowed to select three different activities in which they wished to take part on a rotating basis. These programs included woodworking, choral and group singing, square dancing, creative art, drama, cultural-awareness, and photography.

In the photography sessions, students learned the use of cameras, film development, print making, slide making, movies, and each student made a box camera. Children learned to develop their own pictures in a darkroom, and had opportunity to enlarge some as well.

A Student's Action Shot

EVALUATION

Evaluation has been primarily on a subjective-observation perspective. We feel we have provided students with a little "knowledge of the world" which they might not have had otherwise. The following are student comments:

"I've learned how to make a camera, and how (to) load a camera. Plus how to develop film. I learned how (to) run that big lumux in the dark room at Menaul. And how to run a movie projector."

"...I might be a photographer when I grow up. I've been giving (it) a lot of thought. I think it will be fun to be a photographer.... It really isn't hard, all ya got to do is take pictures."

Perhaps the above quote is an insightful indication of the value of photography as a practical medium of instruction.

Negative student comments mentioned they disliked having to walk to Menaul and back in order to use the darkroom. Another student when asked what he liked the least about the class responded, "I didn't like nothing the least in your photography class. I liked it all."

ACKNOWLEDGEMENTS

Mr. Izar Martinez, Menaul High School
University of New Mexico, Art Education Department
Faculty and Staff of Stronghurst Elementary School

BUDGET

Chemicals:

5 gal.	Photographic Mixer D-76	$ 4.75
6 gal.	Photographic Fixer	4.20
5 gal.	Hypo Clearning Agents	4.25
3 gal.	Concentrated Stop Bath	3.00
6 gal.	Decktol Developer	6.30

Equipment:

2 each	Yankee developing tanks	6.58
2 sets	Tongs and Plastic	1.70
2 each	Thermometers	2.90
5 each	Plastic beakers 16 oz.	5.75
2 each	Plastic funnels	3.40
2 cartons	Cassettes (10 each carton)	3.80
2 each	Film loaders (bulk, for 35mm)	13.00

Paper:

1 each	Luminos (100 cnt. dbl. wgt. 8 x 10)	8.25
1 each	Ogfa 135-111-3	13.00

Film:

2 each	Panatomic 35 In. Bulk 100'	14.80
2 each	Plus X 35 M	14.80
6 each	Olympus Tup 35mm Cameras	252.00
1 qt.	Direct Positive Processing Kit	4.25
1 each	Changing Bag	8.50
1 ea.	Film 100' Plus - X 3m	7.40
1 ea.	Film Panatomic 35" Bulk 100'	7.40
1 ea.	Luminos (100 cnt. double wgt 8 x 10)	8.25
	Total	$398.28

SECTION III

INDUSTRIAL ARTS

(Includes projects with primary emphasis on woodworking, metalworking, mechanics and drafting, alone or in combination with other crafts.)

TITLE: EXPLORATORY PROGRAM IN VOCATIONAL EDUCATION FOR THE ELEMENTARY SCHOOL

SCHOOL: Alamosa Elementary

COORDINATOR: James T. Franklin, Principal

PROJECT ASSESSMENT

Nature of problem. There is a definite need to introduce our students to the world of work--an in depth, systematic experience and an investigation of all the opportunities that exist in our modern society and the world of work.

Hypotheses and rationale. By enriching our curriculum we expect that students will want to come to school. We expect that when students know what work is, they will develop a respect for it. We also want to help develop in the children a self-awareness that is positive and respect for the dignity of all kinds of work.

OBJECTIVES:

1) To improve our methods of providing students with information and experiences related to the world of work.

2) To improve the attitudes of our students toward jobs and work.

3) To supplement and enrich the curriculum with hope of improving attendance.

4) To improve the self-image of our students through career awareness and increased interest in school.

Methods for assessing achievement of objectives.

1) Each student will be given a short pre test before entering into career awareness activity.

2) Each student will keep a notebook of career and occupational information.

3) Each student will be given a post test.

4) Observation of staff will also furnish evaluative information.

PROJECT DESCRIPTION

People Involved. Approximately 100 sixth graders, five staff members, two community parents, the principal and custodian. Students range in age from eleven to twelve years. They come primarily from low socio-economic background families.

Facilities. Individual classrooms have been used successfully. However, we hope to have a facility for expansion and further development of the program next year.

PROJECT METHODOLOGY

Instruction was offered once each week for one hour and at other alternate times as scheduled by the teacher.

Subject matter included vocational guidance and Career of the Month focus. We began with the immediate small community and broadened our scope to include the larger concept of our environment. In the upper grades we expanded occupational experiences, and taught occupations as groups of job clusters.

Activities included use of the sixth grade SRA Career Kit, experiences in leathercraft, woodwork, and other construction related subjects involving the use of tools. We also had a Chinchilla raising unit. Field trips included an excursion to a local hospital and follow-up visit to a private medical clinic.

Woodworking

Leathercraft

Needlecraft

EVALUATION

The project thus far has been most successful in our opinion, especially in enhancing student attitudes and in improving their desire to attend school. No final formal testing was conducted because of late shipment of tools and materials, resulting in a slow beginning. However, overall parent and staff reaction has been most positive in all areas.

RECOMMENDATIONS

1) More adequate space for the program would be desirable.

2) Would recommend some type of in-service training for the staff for this kind of project.

3) We plan to involve more staff, pupils, community, parents and other supportive agencies for donation of services and materials in the future.

ACKNOWLEDGEMENTS

These resource people were helpful in initiating the project:

Robert Hall, Parent

Leroy Brannon, Vocational Education Department

Don Thomas, Area Vocational Coordinator

Bob Stevens, Staff, APS

Jose Lopez, Staff, APS

Doris Galvin, School Nurse

BIBLIOGRAPHY

Elementary School Principal Yearbook "Career Development in the Elementary School"

Elementary Guide For Career Development, Lee Laws, Austin, Texas, 1970

"Room to Grow", Philadelphia's 13 Class Project 1970.

New Jersey's T4C Program...Technology for Children, N.J. Division of Vocational Education, 1971

BUDGET

Tools, equipment, and materials and supplies....total $500.00

TITLE: AN INTRODUCTION TO THE RUDIMENTS OF CARPENTRY THROUGH WOODWORKING, USING STANDARD TOOLS AND MATERIALS

SCHOOL: Armijo Elementary

COORDINATOR: Don Thompson, Teacher

PROJECT ASSESSMENT

Nature of the Problem. How to introduce elementary school children to the rudiments of carpentry in a voluntary, enjoyable manner.

Hypotheses and rationale. Children enjoy creating things with their hands. If a group of children could be provided with the tools and materials generally used in carpentry, and they were given the freedom to use the tools under adult supervision, they could construct products of their choice, and in varying degrees learn the rudimentary skills of this career. In so doing they would achieve a measure of success which would in and of itself be most rewarding.

OBJECTIVES: The students will be able to:

1) name the tools most commonly used in carpentry.
2) properly use and care for tools and materials.
3) apply mathematics principles to carpentry.
4) plan details of conceived projects.
5) work with others in a job-like situation.
6) select proper materials for achieving specific purposes.

Methods for Assessing Achievement of Objectives.

Through observation of students, the following questions will be answered to determine degree of achievement of objectives.

1) Can student recognize and name the tools used in carpentry?

2) Can proper use and care of common tools and materials be stated by the student?

3) Is proper use and care of common tools and materials evident as the student uses them?

4) Are mathematical tools (rulers, squares, levels, geometric form, etc) being utilized in conjunction with individual projects?

5) What evidence of planning individual projects is observed by the teacher?

6) Are tools, materials and work space being used cooperatively?

7) What knowledge and methods are being developed by individuals for selecting the proper materials (wood size and kind, nail type and size, finishing materials, etc.) to accomplish desired results?

PROJECT DESCRIPTION

People Involved. Thirty fourth grade boys and girls participated. Seventy per cent of these children are Spanish surnamed. In addition thirty boys from grades K through 5 participated on a voluntary elective basis for one hour and forty-five minutes on one day a week. This was during the program called "Happiness is Fridays"--a total school project with numerous elective courses offered.

There was one certified elementary teacher (Donald L. Thompson) assisted by two senior high students (Fridays only) and one parent.

Facilities. The activities took place within a portable classroom as well as the school yard area in the vacinity.

PROJECT METHODOLOGY

Instructional Setting. Fourth grade students regularly in the portable classroom were allowed to work on individual projects at almost anytime during the school day. Scheduling of the other academic work was flexible so that children could engage in woodworking before, after or between curriculum lessons. If a child was particularly absorbed in a shop project, sometimes his academic work was permitted to be made up on the next day, so that his shop work was not interupted.

Subject matter. Children selected their own projects among which were birdhouses, plywood keyholders, cutting boards, small shelves, etc.

Teaching Methods. The portable classroom is an open classroom situated so that woodworking presents no particular problem in conjunction with the regular academic requirements. When the noise level became disruptive, woodworkers were encouraged to go and take their work outside.

During the "Happiness is Friday" activities, the thirty students met in the portable classroom for a brief group period of instruction for about fifteen minutes--sometimes for demonstrations. Then the group engaged in laboratory work assisted on individual projects by the instructor and aides.

Field Trip. A field trip was taken to the Turn Key home building project at Central and Sunset. There the class was able to trace various stages of home construction from foundation to nearly-finished home.

EVALUATION

Testing. A pre and post test was administered in which students were asked to identify numbered tools displayed on a table. The post test clearly evidenced increased scores.

We also carried on continual observation of students as they worked on their projects, and felt that the course objectives were being met.

Conclusion. The fourth graders of the portable classroom were generally successful in their woodworking projects. All but two children tried, on a voluntary basis, to make something out of wood using carpenter's tools. Other objectives were reasonably met.

The Friday woodworking group was very successful. These children deliberately chose this activity which may account for the high degree of enthusiasm, effort and results. For each of the six sessions they attended, it was common for the students to work straight through for nearly two hours.

It has been noted that while children engaged in woodworking activities, behavioral problems were practically non-existent; attitude was very constructive; and performance was high at each age level. Behavior and attitude on field trip were commendable.

RECOMMENDATIONS

1. One instructor is not adequate for helping large numbers of students, particularly if they are very young. At first the kindergarten and first grade students required considerable individual attention, but after a few sessions were working independently quite well.

REFERENCE SOURCES

Armijo Elementary School Library

TVI and APS Vocational Departments

BUDGET

Tools and Supplies $140.00

(This Mini-Grant project was conducted in conjunction with a kindergarten project at Armijo School which accounts for the low budget.)

TITLE: INDUSTRIAL EDUCATION IN THE UPPER ELEMENTARY GRADES

SCHOOL: John Baker Elementary School

COORDINATOR: Pat R. Chandler, Instructor

PROJECT ASSESSMENT

Nature of the problem. In the school year, 1970-71, there had been an honest effort to bring Industrial Education into the elementary school, but without proper equipment, it was only a token effort. There was a qualified teacher with a major in Industrial Education, but there were no funds to purchase a Stanley Mobile Tool Cart which our school needed.

Hypotheses and rationale. The solution to the problem was immediately apparent when funds became available to purchase the tool cart needed.

OBJECTIVES: After instruction the student will be able to:

1) Read a working drawing in relationship to industrial blueprints.

2) Make a material bill and plan the procedure for doing a job in relationship to industrial work.

3) Use all tools in the Stanley Mobile Tool Cart #37-148 with assorted tools.

4) Make common wood joints.

5) Use and distinguish kinds of glue and finishes used in assembly line production projects.

6) Work in an assembly line in producing mathematical puzzles listed below:

Automobile Puzzle
Plane Puzzle
Ship Puzzle
Six Piece Bun Puzzle
Tank Puzzle
Dog Puzzle
Nail & Eyelet Puzzle

Criterion Measures. Students will be given an objective test to determine their evaluation of people who work with wood or in the "greater field" of Industrial Education (i.e. lumbering, chemist, carpenter, secretary, etc.) This test will partly be given by the student to an employee of Holiday Park Homes.

Another measure will be subjective discussions and evaluations of students and their awareness of the DIGNITY OF WORK of all kinds.

Students will also evaluate their own work and its effect on their general self-esteem.

PROJECT DESCRIPTION

People Involved. A total of 29 students, fourth and fifth graders from middle income families. The class has only been offered from April through May due to delay in obtaining the tool cart.

Students also had exposure to the shop at Hoover Middle School and to construction workers in the Holiday Park Homes area.

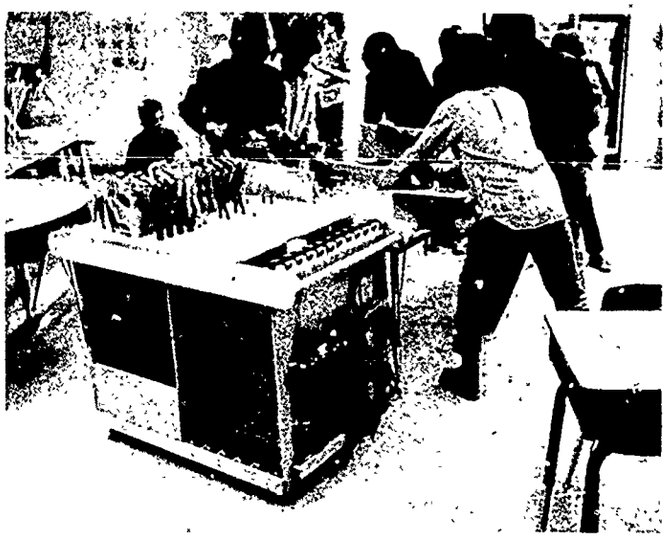
Facilities. A classroom and/or outside of the building on a covered sidewalk.

PROJECT METHODOLOGY

Each class meets for 60 minutes for 35 times to complete one session (5 weeks).

Classes were taught in large groups, small groups and individual instruction was also available. Emphasis was on team effort in producing mathematical puzzles on an assembly line showing relationship to actual production of similar items produced in today's industry. (Puzzles will be used by upper grades.)

The Stanley Mobile Tool Cart



Students working on math puzzles

EVALUATION

Testing. There was a final written test. This was a take-home type test, to have the student make "value judgments" about the work of three adults. This instrument also surveys the student's knowledge of the general industrial work field.

Additional evaluation was possible through observation of students while engaged in the project.

Conclusion. This project has been very successful. The community, school, and all people connected with it are excited about it. (PTA contributed funds to the project and Holiday Park Homes donated some wood.) There has been no negative student behavior, and student performance was far above the expectation of the instructor. We only regret that the tool cart arrived so late in the year.

ACKNOWLEDGEMENTS

APS Vocational Department

John Baker Elementary School Administration

Holiday Park Homes for time and wood

Santa Fe Builder's Supply Company for reduced price on tool cart

BIBLIOGRAPHY

SRA World of Work kit.

SRA Occupational Information In The Elementary School.

Scabey, Mary Margaret, "Teaching Children about Technology," McKnight & McKnight Publishing Company, 1968.

Gilbert, Harold G.,. "Children Study American Industry,"
Wm. C. Brown Company Publishers, 1966.

BUDGET

1 -- Stanley Mobile Tool Cart #37-148 $575.00(Value)$498.50 (Cost)

TITLE: EXPERIMENTAL SHOP FOR THE DEVELOPMENT OF IMPROVED STUDENT ATTITUDES AND ABILITIES

SCHOOL: Chaparral Elementary

COORDINATOR: G. G. Williams, Principal

PROJECT ASSESSMENT

Nature of the Problem. There was a felt need at Chaparral for an expanded program that would go beyond the academic realm.

Hypotheses and rationale. Every child needs aesthetic and mental stimulation to plan and execute original and interesting projects that have meaning for him. Many potential drop-outs and under-achievers can change their negative attitudes about themselves to more positive ones, simply by engaging in activities in which they quickly achieve enjoyment and success.

OBJECTIVES:

To provide activities in which children experience success, develop an awareness of the world of work, recognize and know how to use assorted hand tools. Also to recognize that there is dignity and satisfaction in a job well done.

Methods for assessing achievement of objectives have been teacher observation, pre and post tests, and conversations with students.

PROJECT DESCRIPTION

People Involved. 600 students, including first through fifth grades. Most students come from a slightly below average socio-economic level. Approximately 70% have Spanish surnames, 20% are Anglo, with the remainder represented by Indian, Negro and Oriental children. Twenty-four faculty and staff members, and several parents assisted.

PROJECT METHODOLOGY

Instruction was carried on by individual classroom teachers, the principal, the aides, and interested parents who have talents in the various industrial fields.

Scheduling, planning, etc. was left up to the teachers on a sign up basis. This project worked in conjunction with the North Area "Arts and Industrial Crafts Program"

EVALUATION

Pre and post tests measured the students' ability to name various handtools and associate various types of work with the correct vocational title. The tests indicated considerable improvement in ability to achieve the above.

Teacher and parent reaction and interviews with students also indicate that progress was made toward achieving our objectives.

RECOMMENDATIONS

Probably more time should be allowed for similar projects, otherwise activites must be quite limited.

Also suggest that more staff members and students be charged with early responsibility in planning and setting up the projects.

Some problems concerned lack of interest on part of some staff members, and the difficulty of securing needed tools and supplies.

BIBLIOGRAPHY

Elementary Guide for Career Development - Grades 1 - 6

Education Service Center, Austin, Texas.

Career Transparencies and Discussion Guide

Education Service Center, Austin, Texas

BUDGET

Materials & Supplies from Sutherland Lumber		$143.19
Supplies from Warehouse		371.92
	Total	$515.11

TITLE: LABORATORY FOR ORIENTATION TO SAFETY AND EQUIPMENT UTILIZATION

SCHOOL: Embudo Elementary

COORDINATOR: C. N. Sanchez, Teacher

PROJECT ASSESSMENT

Nature of the Problem. There is a need in the elementary school to change attitudes about careers and vocations and stimulate an awareness of career opportunities.

Hypotheses and rationale. The elementary school years are of prime importance for the intrinsic cognizant enhancement of future vocational attitudes.

OBJECTIVES

1) To create an awareness of the world of work and the necessity of being dependable and performing our work well.

2) To practice safety when working with tools and in the vicinity of machinery.

3) To work together cooperatively.

4) To construct steps for drinking fountains that were too high for small children to reach.

5) To construct study carrels for the library.

6) To construct a "take home" project of the individual's choice.

PROJECT DESCRIPTION

People Involved. Fifth and sixth grade students who expressed a desire to participate. Only about half of those who wanted to register could be accomodated in our limited space, so students were selected by vote after making speeches. The sessions were conducted after regular school hours.

PROJECT METHODOLOGY

Students selected for the program were informed of the following rules that must be adhered to.

1. Student desire to participate.
2. Parent consent expressed by signing a permission form.
3. Regular attendance required.
4. A student might be replaced by an elected alternate at the sole discretion of the instructor.

The program was planned by areas and phases of concentration. The planning and details were decided by the students. Students were instructed on use of tools, safety, etc. During the project they constructed steps for water fountains, study carrels, and individual projects.

EVALUATION

The attainment of our goals was expressed by:

1) Accident rate - 0
2) Actual project constructed and in use.
3) Pre and post tests, as well as observation of performance.

Conclusions. This has proven to be a most excellent vocational awareness training program. A continuation of the program would not only afford students the opportunity to improve their gross and fine motor coordination, but to continue and reinforce the attitudes generated toward the world of work.

Construction of study carrels
"Not my finger, the screw!"

Just a chiseler at heart!

Don't step in the varnish!

I wonder who drew these plans?

BUDGET

	Funds Requested From RCU	Local or Other Support Funds
Personnel:	$135.00	
Materials & supplies	250.00	$25.00
Travel & Per Diem:	68.00	
Typing	15.00	
Totals	$468.00	$25.00

TITLE: DRAFTING, AND ELECTIVE FOR THE SCHOOL BORED

SCHOOL: Esperanza School (Ungraded)

COORDINATOR: Earl W. Johnson, Teacher

PROJECT ASSESSMENT

Nature of the Problem. In the past students have indicated a desire to take drafting as a profession. Some have even dropped out of Esperanze to take drafting at TVI. However, because they lacked certain prerequisites, they were not able to succeed there.

Hypotheses and Rationale. A course in drafting would allow students a chance to discover whether they were interested in continuing in a drafting related career. In a special school such as ours, it was also expected that some students might better succeed in curriculum studies if they were interested in a course such as drafting.

OBJECTIVES:

1) to interest students in a skill which might lead to a career.

2) to make students aware of the related job opportunities such as electrical, mechanical, printing, etc.

3) to encourage and stimulate interest in learning.

Criterion methods of assessing achievement. Students were given a lettering test along with a nomenclature test on tools and materials related to drafting language.

PROJECT DESCRIPTION

People Involved. Five students were selected on the basis of strong interest in drafting. Of these only one dropped out. Instruction was carried out by one teacher, however, all other staff members were very cooperative and supportive.

Facilities. One-quarter of the typing room was designated for drafting space allowing for five tables and supplies. The room had particularly good lighting which was an asset.

Student Characteristics. All students at Esperanza are special students who have had problems of one kind or another at other schools. The drafting students included boys and girls, ages 15-17, grades 8 - 11. The students frequently are from broken homes and display emotional or education problems, ranging from lethargy to hostility.

PROJECT METHODOLOGY

Students spent fifty minutes, three times a week in drafting class, a total of 2½ hours a week. Occasionaly a student worked more than this when he had opportunity.

The students studied basic descriptions, nomenclature of tools used in drafting and how to use them. Lesson plans were simple problems taken from books listed in the bibliography. Instruction was individualized according to a student's needs and abilities. Frequently, a drafting student worked in the room during a typing class, thus allowing the teacher's attention to the typists and the drafting student.

Field Trips. We also took two field trips as follows:

1) TVI

2) Bureau of Indian Affairs.

We also hope to secure part-time employment for promising students as their skills increase.

EVALUATION

Post testing indicated an 80% improvement on previous asked questions.

One teacher evaluated the results: "I have three male students partaking in Mr. Johnson's drafting class and have noticed the following traits due to the program:

1) All students have developed positive attitudes toward themselves and their work because of their accomplishments in the drafting class.
2) For the students who are slower in mathematics, they have been able to substitute drafting in its place, succeed; and gain credit for this success.
3) Mr. Johnson's drafting students have actually had the opportunity to apply their skills at a carpentry shop and due to their success, their enthusiasm has maintained a high level.
4) The drafting class has increased each student's individual worth because they are doing things on their own which are a little different from the other students in our school."

Conclusion. The success of the program can be summed up in the fact that about 50% of the students at Esperanza would like to take drafting when it becomes available to them. We hope next year to give all students (60) an opportunity to get involved in drafting even if only for a short four week session, if funds are available for equipment and supplies. We will continue to record the progress of the students involved in this first attempt at drafting to see

what long-term results might be noticeable.

RECOMMENDATIONS

Particularly when working with special students, it is necessary to keep classes small in order to provide the individual help needed.

It might be beneficial to give some pre-drafting lesson in fractions, how to read rulers, triangles, etc.

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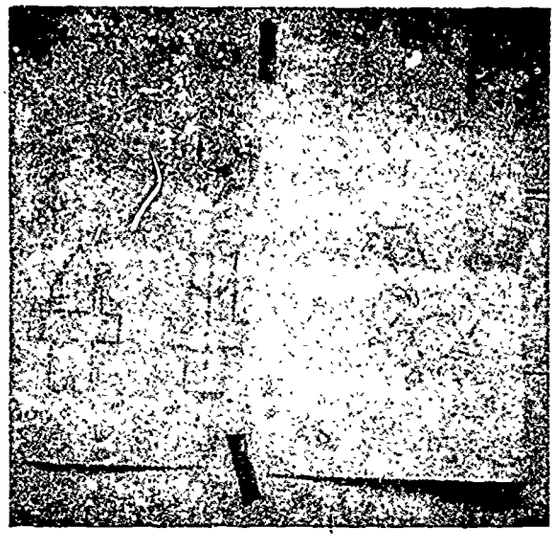
Mimeographed materials from TVI.

Industrial Arts Drafting, by John R. Walker and Edward J. Plenyak

Basic Technical Drawing, by Henry C. Spencer and John T. Dygdon.

BUDGET

Supplies		$397.14
Typing		15.00
	Total	$412.14



Drafting Projects

The Drafting Space

TITLE: DEVELOPMENT IN READING SKILLS FOR UNDERACHIEVERS THROUGH IMPROVEMENT OF MANUAL DEXTERITY

SCHOOL: Larrazolo Elementary

COORDINATOR: Elias N. Quintana, Teacher

PROJECT ASSESSMENT

Nature of the Problem. Many of the students in my class were slow readers and seemed to lack interest in practicing the basic skills.

Hypotheses and rationale. It was believed that students would practice reading and math skills in order to perform an exciting and challenging activity with the hands, and that as a result the basic skills would improve.

OBJECTIVES :

1) To provide opportunity for students to learn a skill that might become a vocation or hobby such as leatherwork.

2) To insist that projects first be researched (reading) and written up (language arts) before leatherwork can begin.

3) To insist that scale diagrams be submitted for each project before leatherwork can begin (math).

4) To help students recognize that basic curriculum skills are necessary to perform meaningful work.

4) To improve student's self-image through success at hand work.

5) To improve students' manual dexterity through precise, exacting hand work.

PROJECT DESCRIPTION

People Involved. Approximately fifty pupils of the fifth and sixth grade.

Facilities. An open space classroom.

PROJECT DESCRIPTION

Before students were allowed to work with the tools and leather, they had to do research on the use of leather and write a report. Then they were required to design and sketch the article they wished to make with leather. This was to be an "actual size" drawing, including naming the article, and indicating dimensions. The designs and reports were carefully checked for writing, spelling and drawing. If a pupil decided to change his project, it was "back to the drawing board".

Students made the following items: purses, wallets, wrist watch bands, pendants, scandals, key purses, coin purses, belts, head bands, and comb, knife and dagger cases.

EVALUATION

All of the students enjoyed the class, and so did the instructor. It appeared to be a very profitable venture both academically and monetarily--students sold many of their projects (thus engaging in salesmanship) and returned the proceeds to the leather fund for continuation of the program.

BUDGET

Leather materials & tools		$470.00
Typing		10.00
Books, manuals		20.00
	Total	$500.00

TITLE: SELF HELP PROJECT IN INDUSTRIAL ARTS AND CRAFTS

SCHOOL: McCollum Elementary

COORDINATOR: Herbert Merville, Teacher

PROJECT ASSESSMENT

Nature of the Problem. It was felt that students need an activity that will help them understand the relevance of education toward preparation for the world of work, as well as being made aware of some of the career opportunities available to them.

Hypotheses and rationale. I believe that if students are exposed to some application such as woodworking arts and crafts, they will see the need for curriculum basics, they will develop respect for all kinds of work, and they will be rewarded because of successful completion of work they do with their own hands.

OBJECTIVES: As evidenced by testing, students will be able to:

1) Name and identify at least three different types of lumber.

2) Name and identify at least three different grades of lumber.

3) Identify at least five different sizes of lumber.

4) Name and identify at least ten tools and/or machines used in woodworking.

5) Construct from raw materials at least one marketable wood product.

6) Sell in open market at least one finished woodworking product.

PROJECT DESCRIPTION

People Involved. One class of sixth grade students and one teacher.

PROJECT METHODOLOGY

The project will run simultaneously with generous use of the SRA WORK kit. Students read briefs about different occupations, and do research on their own about special interest areas. In addition there were speakers representing different occupations, and students visited a lumber company. An attempt has been made to relate specific classwork to the world of work including math, science, social studies, writing, and reading.

Most instruction in the woodworking lab in not lecture or paper work, but experiencing ways to handle tools and materials. Although, there was a separate unit on "safety" it will be retaught daily throughout the project period.

The project was planned to run for eight weeks. During this time students were involved in the SRA WORK study, in consumer education, vocational skill development, and sale technology.

EVALUATION

Observation of student attitudes and final products evidence the fact that most students met all the desired objectives, and the project was a very valuable one.

BUDGET

Wood Supplies	$159.17
Paint Supplies	118.06
Tools	80.67
Video Tapes (2)	28.54
Yarn (ojos)	18.69
Typing	15.00
Field Trip transportation	40.00
	$460.13

TITLE: SMALL ENGINE REPAIR

SCHOOL: Wilson Jr. High

COORDINATOR: Percy Larranaga, Industrial Arts Instructor

PROJECT ASSESSMENT

Nature of the Problem. There had been requests from students to learn small engine repair so that they could work on family appliances and motorcycles. Also, there was a need to initiate instruction in the field of mechanics and by so doing expose students to a family of careers.

Hypotheses and rationale. It was expected that by providing a new kind of course in our industrial arts program, we might not only fill a definite need, but we would be able to offer a program so exciting that lethargic students, who were potential drop outs, might be encouraged to continue school. Also, we felt that a course such as small engine repair would assist students in personal, social, and educational adjustment, and might lead some students to a mechanical occupation.

OBJECTIVES:

General:

1) Development in each student of skills in the safe use of tools and machines.

2) Understanding the place of men, tools, and machines in the industrial society in which we live.

3) Develop judgment and resourcefulness in selection, purchase, and care of industrial products and services both in the home and occupational life.

4) Development of work habits, feelings of responsibilities to plan and execute work alone and in cooperation with others.

Specific Objectives:

1) To develop habits of orderly and logical thinking.

2) To develop habits of orderly performance of any task.

3) To develop cooperative attitude through sharing tools and maintaining an awareness of the welfare of others.

4) To enable each student to understand his abilities and potential, to develop them as well as possible, to relate them to life goals, and finally to reach a state of complete and mature self-guidance as a desirable citizen in a democratic social order.

PROJECT DESCRIPTION

People Involved. One class of ninth grade students, including two girls, and one instructor.

Facilities. A good sized shop room for which students constructed the necessary equipment for small engine repair, including: work benches, tool crib, engine stands, bulletin boards and wall charts.

PROJECT METHODOLOGY

This was a two semester course in which students overhauled small engines which were donated, or loaned for repair. Kinds of

engines worked on included lawn mower, boat, motorcycle engines, etc. We had a speaker from an electic company who became so interested in our project that his company donated an engine to the cause. Sometimes instruction was by lecture. The following lists some of the topics covered in the course:

Employment opportunities

1. Sales
2. Shop specialists in engine repairs
3. Auto accessory chain stores
4. Customer relations
5. Business procedures

Safety

1. Use and care of required hand tools
2. Safety and shop housekeeping

Principles

1. Engine principles
2. Lubrication
3. Ignition and recoil starter systems
4. Carburetion and fuel systems
5. Engine speed control
6. Engine cooling
7. Tune-up techniques
8. Troubleshooting techniques
9. Major engine overhaul
10. Routine maintenance and storage

Students were encouraged to participate actively in lecture and demonstration. They were responsible, under daily assignments, for the storage of all tools. In lab work, four students worked together in each group project.

EVALUATION

Every two weeks students were given a quiz to determine their progress. In addition, the instructor has been able to observe performance in the laboratory experience and note change in attitudes.

Several students mentioned to the instructor that they were ready to drop out of school until the engine repair class began and then they decided to stay. Another student had already left school and ventured out to California, when he changed his mind and returned, primarily, he said so that he could take this course.

Students in the course, unfortunately, have caused some problem by being late to their next class. They just never wanted to leave. Other students, not in the class, have been so curious, that at times we have been beseiged with kibitzers. To date, registration for the small engine repair for next year indicates we will need three classes in order to accomodate all applicants.

RECOMMENDATIONS

1) A course such as this really needs a special work space where grease won't pose a bad problem.

2) It is sometimes difficult to find persons who will donate enough small engines for the class to work on.

3) One of the greatest rewards of working on such a project is to see the expression on the student's face when after all the hours of working on his engine, he attempts to start it, and it works!

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Manufacturers' Literature:

Briggs and Stratton Corp., Milwaukee, Wisconsin. Theories of Operation (4-Cycle) Engine Service Manual.

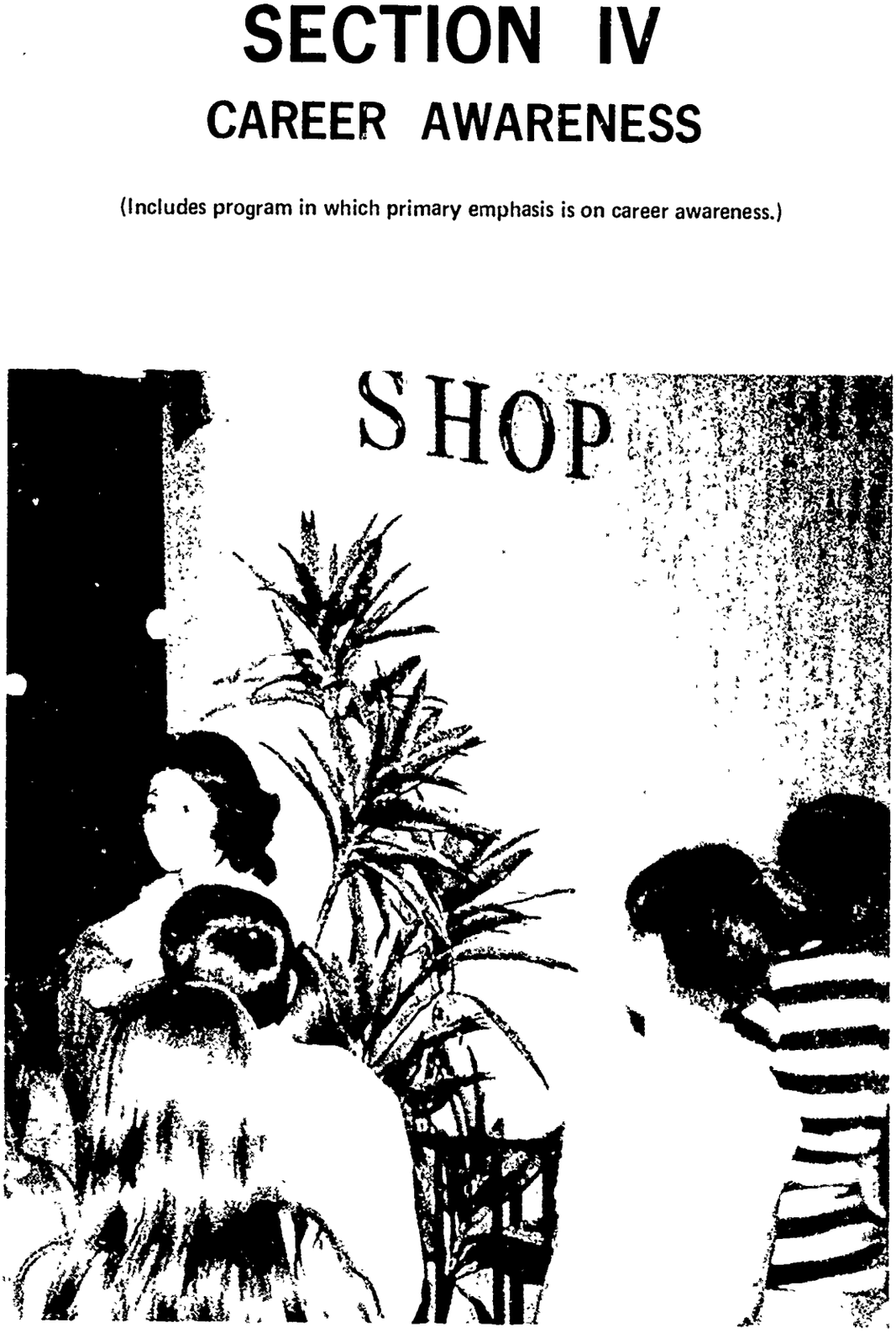
Chrysler Corporation, Detroit, Michigan. Electrical Fundamentals, Magnetism and Electricity, Story of the Carburator.

BUDGET

Materials or Supplies:	$475.00
Films, Slides, Field trip	125.00
Typing	15.00
Total	$615.00

SECTION IV
CAREER AWARENESS

(Includes program in which primary emphasis is on career awareness.)



TITLE: A VOCATIONAL EXPLORATION FOR FOURTH GRADERS

SCHOOL: La Luz Elementary

COORDINATOR: Lucerne Knight, Teacher

PROJECT ASSESSMENT

Nature of the Problem. Many experts feel that educators do not begin early enough giving our students an idea of the wide variety of job families available in our world today, nor what is included in these jobs.

Hypotheses and rationale. Our goal was to show the dignity of all forms of work, and to show students that many interesting and well paying jobs do not require a college education. The Mini-Grant provided multimedia materials, games, and experiences which wouldn't have been available to the students otherwise.

OBJECTIVES:

1) To show the dignity of all forms of work.

2) To show that many interesting and well paying jobs do not require a college education.

3) To help each student learn about his own abilities and interests so he will be able to make a better vocational choice and plan for his future.

4) To provide students with information about the world of work.

Criterion Measures. A pre and post test will ask questions such as: "Should people have to work?" "Name as many jobs as you can that do not require a college education."

Students will also compile at least one booklet on a particular job including drawings, magazine pictures, photographs, and an interview with someone in that occupation. The booklets will be read in class and cassette tapes could be made to accompany each vocational booklet.

Students will also interview between one and three persons in different occupations and give an oral report about the interview.

PROJECT DESCRIPTION

People Involved. Twenty-three students--a combination of third and fourth graders, all underachievers with normal or above intelligence There was one teacher, and on field trips a teacher's aide, Mrs. Pat Cope.

Facilities. Activities were conducted in a classroom, on the playground, at places of business.

PROJECT METHODOLOGY

The vocational unit was integrated into the entire day's schedule. We used well planned lessons with multimedia materials with group and

individual instruction. We also made full use of spontaneous happenings in and around our school to increase our knowledge of vocations. For example, some painters arrived to paint our room, so we asked them to talk to us as they worked. They discussed union, non-union workers, salary, hazards, etc. as they painted. We also interviewed a TV husband and wife team who came to our school to put on a puppet play.

When possible we involved the entire school in our activities. The Chief of Fire Prevention came to our school, gave a slide presentation, and then with walkie-talkies, he called in a mock fire report. The engines roared onto the playground where firemen demonstrated the use of the aerial ladders, sprayed water from the pumper truck, and rescued a dummy and took her away in the rescue squad car.

After these experiences and/or speakers, or field trips, we would discuss what we had seen and heard, then choose a way to record it with drawings, sentence writing, making books, or scripts to be read to the cassette. We also took many pictures.

Field trips.

Ideal Cement Plant

Sandia Forest Service in Tijeras Canyon

Cochiti Dam and Cochiti Lake

Dixon's Apple Orchard

A Church in Pena Blanca

Four Season's Hotel (Ate breakfast there, then had a guided tour of the hotel to see the jobs held by 380 employees.)

Public Service Plant on North Edith where an engineer then took us to the SE part of town to see a line crew working

Hal Fran Ranch in Pena Blanca

Speakers.

Baby Gaby Sanchez, recording artist

A father, egg candling

Hobby activities and games. Individual students who had completed assigned work were allowed to partake in hobby activities and games as long as they did not bother other students. Occasionally for extra good behavior, the entire class could have A Free Choice Period. (Sometimes this happened to be 2 or 3 periods a week, and still the necessary work was accomplished.)

EVALUATION

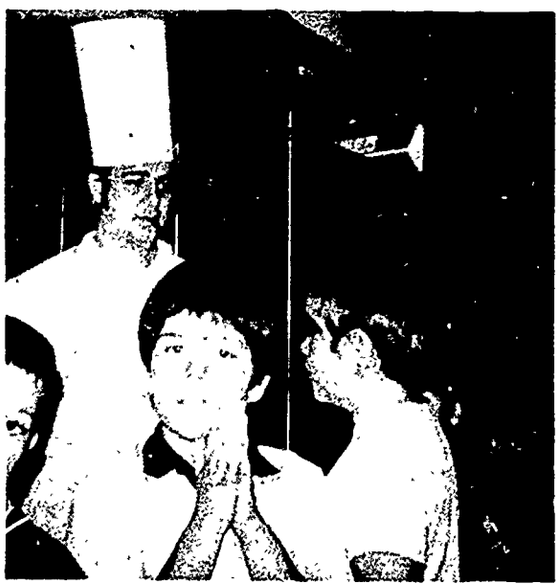
Besides the items mentioned earlier, observation of individuals, and group behavior, community reaction, parents' reaction, and other teachers reaction were taken into consideration.

Conclusion. The students' behavior in class and on field trips became exemplary during the vocational unit due to the high degree of interest. Pride in themselves and the group brought peer pressure to bear whenever we had speakers, visitors, ate in the restaurant, etc. so that people began to comment on what an unusually well behaved group they were.

Touring Four Season Hotel

A maid demonstrates her job

Watching a typist work



The Chef explains

Parents and relatives of the students suddenly became involved and helped in many ways--building cages, repairing aquariums, going on trips, furnishing refreshments, coming for conferences at report card time in greater numbers than ever before, and teaching Mini-classes at school and at their homes.

Because of the interesting things waiting for students when they completed lessons, general performance in daily work improved both in quality and output.

RECOMMENDATIONS

1) I would start the program earlier--in September.
2) Would hope to have materials before needed.
3) Would involve the entire school even more.

ACKNOWLEDGEMENTS

Public Service Co. - Ted Morris, Line Supt.

Great Western at Cochiti Lake - Larry Wilson

Guy Atkinson Co - Eldred Hutchinson, tour of dam site

Four Seasons Hotel - Betty Lacher and Dolores Esquibel

Dixon's Apple Orchard - Mr. and Mrs. Fred M. Dixon

Ideal Cement Plant - Mr. Morton

Sandia Forest Service in Tijeras - staff

Fire Department - Prevention Section - Lt. Adent

Hal Fran Ranch - the wife of the trainer led the tour of the ranch and explained the duties and training necessary for ranch workers.

Baby Gaby Sanchez

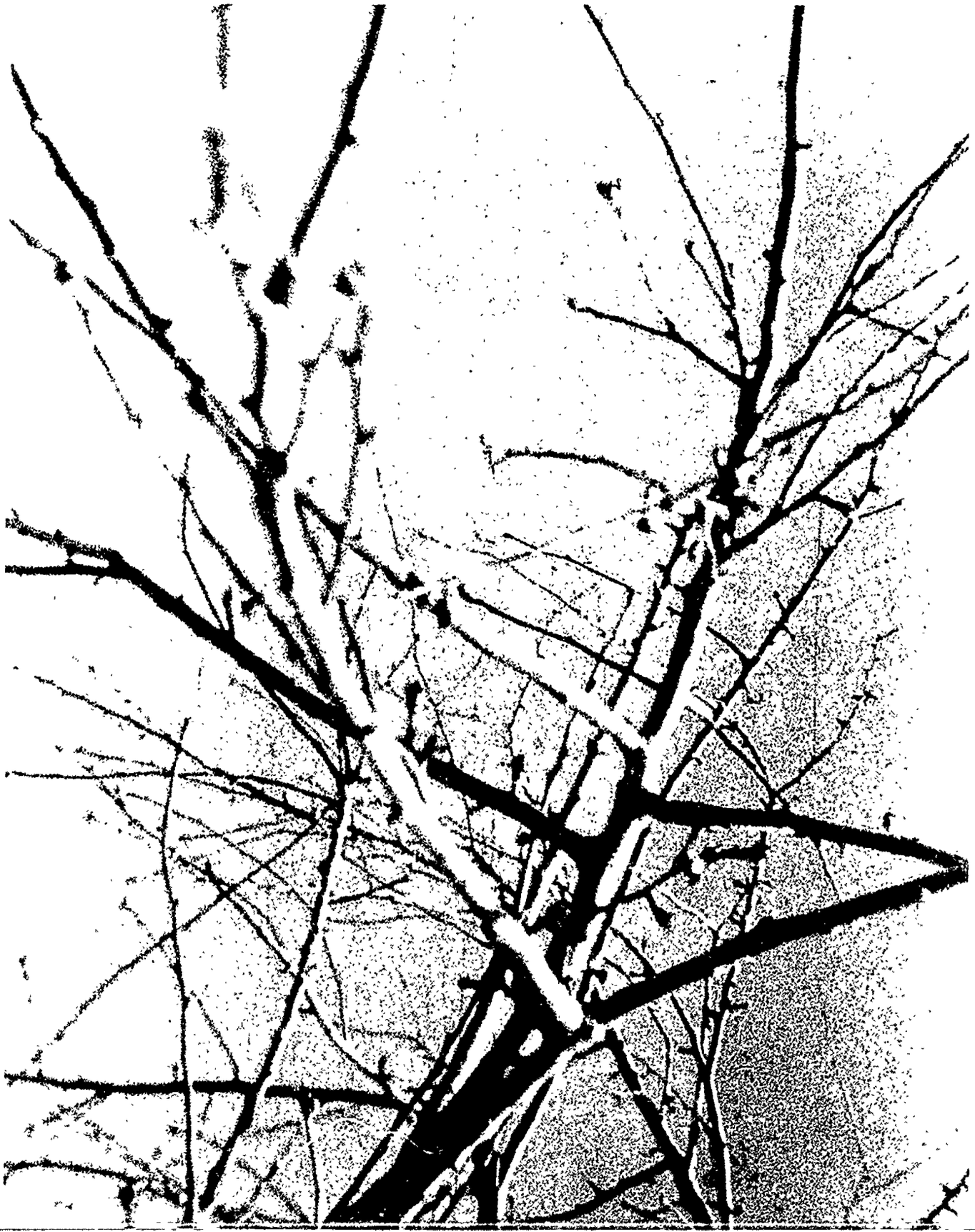
BUDGET

Record	Police Dept. Helpers	4.00
Record	Fire Dept. Helpers	4.00
Record	Keeping the City Clean	4.00
Record	Moving Goods For People	4.00
Study Prints	Super Market	8.00
	Mexico, Crafts and Industries	8.00
Filmstrip/record	Song of the Railroad	9.00
Filmstrips	Five Great Cities	6.00
	Cities and Commerce	6.00
	Where People Live and Work	6.00
Teachers Sissors	9 inch	1.60
Ring Toss		2.75
Clasp Envelopes		5.40
Dominoes		1.00
Lego		6.95
Easy Money		3.75
Good Citizenship Cards		3.75
Useful Signs to See and Read		3.50
Fractions are easy as Pie		1.25
Tell Time Quizmo		3.25
Letter Stencils		1.29
Quizmo Add and Subtract		2.25
Woodburning Set		3.88
Bare Wire	10 ft	.30
Light Bulbs	#14	1.20
Receptacles, Porcelain		1.80
Insulated Wire	38 ft	.80
Knife switch		.80
Bar Magnets, pair		2.25
Teachers Scissors	2	1.10
Jumbo Horseshoe		2.25
Saw		2.99
Hammer		2.59
Screwdrivers		.58
Pliers		.47
5 sets-Fine line liquid crayons		4.65
Hobby battery	$1\frac{1}{2}$ volts	1.84

Gilbert Erector Set	9.88
Tinker Toy Set 250 pc.	3.75
Breakfast for 22 Four Seasons Hotel	22.00
12 inches of felt 80" wide (green)	.93
" " " " " (red)	.93
" " " " " (blue)	.93
12 x 12 square of felt (yellow)	.19
" " " " " (beige)	.19
Parakeet	4.50
Parakeet	1.00
Assorted Fish and Fish Food, supplies	5.00
10 Black and white 126 12 expos.	4.70
10 " " " " " " Proc & dev.	16.80
5 Colored slides 126 proc & dev.	13.00
1 Colored pictures developed	4.37
Pedigree Compass	.33
3 M Package fine sand paper	.62
C Batteries (2 in pack)	.43
Boye 60 in. cloth tape	.29
Crayola - 64	.93
Prism 2q 3Cl	1.50
Beaker Griffin low form 400 ml (2)	1.24
Blue Print Paper (24" wide) per sq ft.	.60
Telegraph Code Set	1.65
Magnet, horseshoe	.45
Magnet, pair (chrome steel)	2.00
Water Bottles (3)	1.05
Old Sewing Machine (portable, good condition)	20.00
Aquarium 15 gal, used, with extras	18.50
Panasonic Cassette Recorder	39.95
Kodak Instamatic X15 Camera	15.88
Field Trip - Tijeras Canyon	20.88
" " Cochiti Dam & Lake, Dixons, Hal Fran Ranch	37.44
5 Colored slide film 126 20 exposures	7.74
5 Magicubes 12 flashes	6.45
TOTAL.....	$389.34

SECTION V

ECOLOGY



TITLE: EXPLORING DEVELOPING CAREERS IN THE FIELD OF ECOLOGY IN OUR STATE

SCHOOL: La Luz Elementary

COORDINATOR: Normal Wright, Principal
Marvel E. Walter, Teacher

PROJECT ASSESSMENT

Nature of the Problem. One of the few things that we can be sure of is that we live in a deteriorating environment and that an increasing share of our national income, our educational focus and our personal commitments must be devoted to returning man, animals, air, water, soil, plants and minerals to a realistic balance. It would appear that ecology will shortly become a "growth industry" encompassing many different occupations. It was felt that children should be aware of the problems and the opportunities.

Hypotheses and rationale. We felt that if children had an opportunity to actually reverse one small ecological disaster, and that if they realized the need for people in ecologically oriented areas, they might consider this as a future field of employment. It was, therefore, proposed that we invite speakers, study the problems, and create a "mini-park" for our school.

OBJECTIVES:

1) Students will be able to describe the attitudes, academic skills, and rewards of at least five of the following ecologically

related jobs: soil conservation, forestry, plant husbandry, botany, chemistry, gardening, landscaping, water resources, clean air, wild life resources, paleo-ecology.

2) Students will demonstrate an understanding of the following steps in maintaining ecological balance by scoring at least 75% of a test--how soil is made, how rain is made, the vital food chains, the reason for bacteria, the water-oxygen-carbon cycles, energy and nutrient cycles, life zones, weather, water tables.

3) Students will physically participate in constructing the mini-park and will report through paintings, stories, poems their learnings in the following steps: preparation of soil, erosion control (wind and water), management of water resources, growing flowers and vegetables from seeds, care of transplanted trees and shrubs, planning for use and care of the park by our school community.

PROJECT DESCRIPTION

People Involved. Thirty-four fifth grade students, averaging ten years in age. The class teacher was aided by the principal, the counselor, six speakers, four fathers and assorted students. Students are from a generally considered low socio-economic background. In visiting their homes, I have only seen a few that have grass or flowers. Most of them have a square of sun-baked, littered ground for a yard.

Facilities. In addition to our classroom, there was a space across from our room, used for the mini-park. It was 30' by 50' and was enclosed on three sides by buildings and on the fourth side by a barracks. It should be noted that in previous years, trees had been planted at the school but had been pulled out by vandals.

PROJECT METHODOLOGY

Speakers came to our classroom at two week intervals during February and March. For six weeks we studied the Scholastic Earth Corps material, supplemented by library materials. In addition we had lab experiences both in the mini-park and in the classroom. We attempted to grow grass in boxes containing varying amounts of humus. Another major project was that of communicating to all students in the school that our mini-park would make the school more attractive for everyone. In this way we hoped to response block wilful destruction.

Our mini-park plantings are a combination of native specimens donated by the Soil Conservation Services and other plants obtained commercially. We also decorated the walkway with hanging pots of geraniums, and constructed an electric fountain in the mini-park.

Sequence.

Fall: Planning the layout and collecting seeds of wild plants.

January: Had pre-test on careers. Wrote letters to invite speakers. and practiced interviews. Planned publicity campaign for school.

February: Began seed flats. Made portable cold frame. Gave pre-test on ecological balance. Interviewed speakers. Prepared soil for mini-park. Made stepping stones for paths. Collected rocks for paths, and lay electrical conduit for fountain.

March: Continued speakers and study of ecological balance. Transplanted large plants and trees and planted native grass.

April: Transplanted flowers and vegetables. Built fountain and began student evaluation.

Field Trip: Visited the Ghost Ranch Museum.

EVALUATION

Pre and Post test indicated that 80% of the children were able to identify ecology related careers, their requirements and rewards. All the children passed the post test on ecological balance, and all performed adequately in building the mini-park.

The students were enthusiastic about the project and enjoyed it. In particular, one boy who seemed never to succeed in anything, discovered his "green thumb" and his plants thrived better than anyone elses which helped his feelings of self-concept. A number of the students planned to carry on this kind of work during the summer in their own yards at home.

Conclusions. I would recommend this project to any teacher who loves this earth and doesn't mind some of it on herself, as it is both messy and time consuming. Because it is a long project, it takes great patience for the children to see the fruits of their

labors. It will be years before the trees have grown up. However, it was also reinforcing for the students that very little damage was done to the mini-park by other students or vandals. We seemed to succeed in building in a kind of all-school pride about the venture.

RECOMMENDATIONS

1) In the future I would plan to do some of the planting in the Fall so that rewards were not so far off.

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"Conservation and the Water Cycle", #326, 1967

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"Creative Learning Experiences in Conservation", #33-287, July 68

"Teaching Soil & Water Conservation", PA-341, August 1970

ACKNOWLEDGEMENTS

Mrs. Norma Wright, Principal, La Luz Elementary

Mr. Al Martin, Mr. Farmer, Albuquerque Soil Conservation Office

Mr. Harry Davidson, Albuquerque Environmental Agency

Mr. Elmer Scholer, UNM Department of Recreation

Mr. Kiki Saavedra, City Dept. of Parks and Recreation

Mr. John Davis, Fish and Game Dept.

Mr. Martin, Yonemoto's

Miss Pamela Frazer, U. S. Forest Service

Dr. Roger Anderson, UNM Dept. of Geology

Most of all, I would congratulate 34 young children who kept the faith through a long spring, and in the words of one shaggy little boy explaining to another: "Why did we do it? Well, ya' see ya' gotta keep the dirt down and the oxygen up and ya' gotta have these green things to keep the smog down and, well.....ya' do it for Beauty"!

BUDGET

1	5 lbs. blue grama grass seed	$8.75
2	rubber vinyl hoses	13.98
1	sprinkler	8.98
2	bags Desert Green fertilizer	12.98
1	hammer	2.59
1	hammer	.99
6	shovels	13.74
6	rakes	14.34
12	sets hand tools	9.48
5	bags ready mix mortar	7.25
4	boards 1x12 - 6' long	8.64
2	boards 2x4 - 12' long	3.20
1	board 1x6 - 14' long	2.73
2	doz screws $1\frac{1}{4}$x8	.60
2	qts lusteron enamel	6.58
4	$1\frac{1}{2}$" brushes	1.16
1	gal. paint thinner	1.75
1	load manure	9.00
1	Tototiller Rental - 3 hrs.	10.50
1	Cement Mixer Rental - 1 day	6.00
2	loads manure	18.00
1	LAA Little Giant water pump	17.16
1	Outdoor extension cord	10.00
1	"Earth Is Our Home"	24.00
1	Additional Activity Books	.75
1	Sharing the Earth	24.00
1	Additional Activity Books	.75
3	Mountain Ash	33.75
3	bags Peat Moss	4.80
2	bales Peat Moss	12.98
6	pkgs. Garen Seeds	1.62
1	Allendale a/c portable cassette	39.75

16	one-hour tapes	12.32
	Typing of materials and reports	15.00
	Field trip to Ghost Ranch	116.48
	Total	$474.60

SECTION VI

HOME ECONOMICS

(Includes projects with primary emphasis on cooking, sewing, child care, and consumer economics.)

TITLE: CAREER EXPLORATION IN CONSUMER SERVICES--A PREPARATION TO DEAL EFFECTIVELY WITH A CHANGING ENVIRONMENT

SCHOOL: John Baker Elementary

COORDINATOR: Shirley Schultz

PROJECT ASSESSMENT

Nature of the Problem. The realization that college is not for everyone and the need for competent persons in the world of work prompted the faculty at John Baker Elementary to offer a sampling of career electives. Prior to the Mini-Grant, we were unable to offer a complete program because of lack of equipment.

Hypotheses and rationale. Students are more highly motivated when they are able to self-select from areas of interst. Students will be able to choose a satisfying and meaningful role in society if they have had an opportunity to explore a variety of career possibilities, particularly in a hands-on approach.

OBJECTIVES:

1) To provide students with technical activities and academic classroom lesson designed to furnish occupational awareness with regard to vocational opportunities in these areas: food preparation and retail services (including, homemaker, chef, restaurant operations, etc.) and sewing, designing, and related retail services.

2) To provide meaningful experiences which assist children in developing self-awareness, self-expression, interests, and abilities.

3) To provide an opportunity for occupational exploration including manipulative, classroom, laboratory, and field experiences.

4) To develop the capacity to deal effectively with the changing environment through planning, problem solving, and decision making

5) To develop an awareness of the importance of work in our society and a conviction of personal responsibility to become a productive member of society.

Criterion Measures will be objective tests, subjective observations, actual performance in the lab situation, and essays about the experience.

PROJECT DESCRIPTION

People Involved. There were five different groups or classes of between 25 and 60 students, a total of 234 students, from 3rd, 4th, and 5th grade, ranging in age from nine to eleven. Students are from middle-upper middle class socio-economic backgrounds, the majority being anglo extraction. Five teachers provided instruction.

Facilities. We used a special room for our home economics room--a 20' X 30' barracks.

PROJECT METHODOLOGY

The five different groups had courses of varying lengths and depth of treatment. One group met for only 5 hours, while others had 8, 12, or 22 hours of instruction. Instruction was carried on in large groups, small groups, and with individuals. Some students also carried on research programs of their own.

Subjects covered included in the two groups which taught food preparation were, related retail services, comparative shopping at the supper market, table decoration, shopping, cooking, eating, and clean up. In addition the students worked with the SRA WORK kit, had a field trip to Jill's Bakery, and had a guest speaker on the subject of nutrition.

In the Sewing groups, subjects included, sewing, designing and related retail services, pattern making, puppet making, presentation of a puppet show, other sewing projects such as toys, aprons, hot pads, and marble bags. In addition, there were film strips used and a guest speaker from a fabric shop.

EVALUATION

Evaluation was based on pre and post test of attitudes toward occupational opportunities in the area of home economics, on class discussion of filmstrips, speakers, field trips, and projects. The students also kept records of their own activities and made an attempt at self-evaluation.

Conclusion. Students in each group expressed feelings of satisfaction in what they had accomplished. Students in the cooking classes expressed an understanding of the cost and comparisons involved in the process of purchasing. Many children were astounded at the time and effort required in shopping, food preparation, sewing an article, and clean up. This gave them a sensitivity to the world of work. The students also discovered the importance of using basic skills of reading and math. A number of the students are now planning meals and preparing them for their families.

Parents voiced their approval of the interest groups and were pleased to see a carry over into the home. It has also been interesting to note that other classes not involved in this project are now using the home economics room for special projects, when the room is available.

RECOMMENDATIONS

1) Late arrival of the stove held up the project in the beginning, and I would suggest arranging vital equipment needs before the start of school.

2) More field trips and speakers would be helpful.

3) Students might also have an active part in planning such a project, and in purchasing supplies and utensils.

BIBLIOGRAPHY

SRA WORK Kit

ACKNOWLEDGEMENT

Public Service Co. of New Mexico, for furnishing the electric stove.

BUDGET

Rental of 2 sewing machines, Singer portables $20.00 per mo. per machine	$120.00
Repair of donated mixer	11.64
Assorted sewing and cooking utensils, supplies	382.31
Total	$513.95

TITLE: CONSUMER ECONOMICS

SCHOOL: Embudo Elementary School

COORDINATOR: Henry W. Morgan, Principal

Kay C. Lamb, Instructor

PROJECT ASSESSMENT

Nature of the Problem. Today's educational process is geared toward the highest possible academic progress. Insufficient emphasis is placed on the practical application of vocational world of work. In interviews and observation, it was clearly indicated that our students had a deficiency in attitude and information concerning vocational futures.

Hypotheses and Solution. Solution to this problem is based on the premise that intrinsic motivation is actuated by information and practical application, leading to experimentation and exploration, followed by successful completion in the performance of specific skills and selected projects.

OBJECTIVES:

1) To explore new fields and areas of responsibility

2) To define problems in personal time and money management and to project same to family and business situations

3) To identify problems of efficient home and kitchen management

4) To demonstrate ability to function within a specified budget

5) To effectively select patterns, purchase and construct a garment within a specified budget and the value of camparative shopping

Criterion Measures. A control survey was taken in the first week of the program to determine student's current attitude and behavior. Students then kept a log on time and money on a daily basis for a week, followed by discussion of how better management could be effected. Then they kept logs on food intake followed by discussion concerning nutrition, caloric intake, energy requirements and basic four daily consumption.

PROJECT DESCRIPTION

People Involved. Twenty-six students from 5th and 6th grade between the years 9 and 10, one teacher, and four others who assisted at various times. Students represented the full range of socio-economic and ethnic groups, and some eight to ten students reflected some emotional problems ranging from hyperactivity to lethargy.

Facilities. School, cooking and sewing rooms, Hancocks Fabric Shop, Presbyterian Hospital, Albuquerque National Bank, and the multi-purpose room in the school.

PROJECT METHODOLOGY

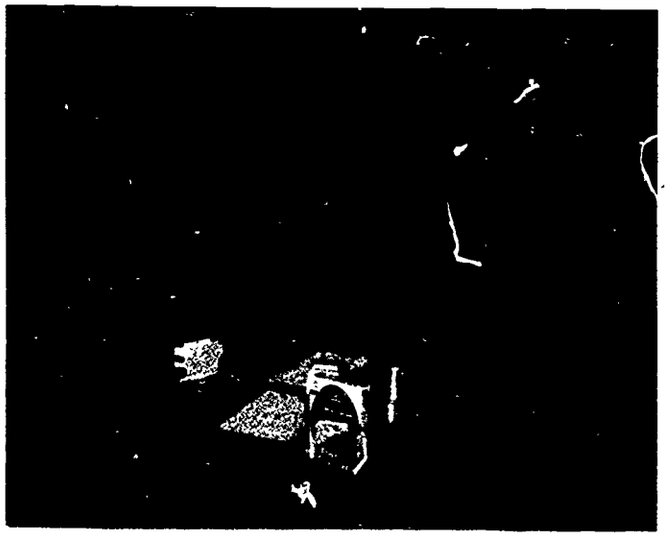
This was an after hours elective course which ran for 10 weeks, with 40 sessions of 45 minutes, four days a week.

Subject matter ran the gamut from personal time and money management to business and finance operations, comparative shopping, cash vs. time buying, budgeting, effective household and kitchen management, nutrition and health, preparation and serving of foods, cost, value and construction of garments, including learning to sew on school's machines.

Instruction was carried on by demonstration, explanation and application.

Activities included log keeping, menu planning, comparative shopping, pattern fitting, preparation of foods, cleaning up, construction of garment.

Field Trips. We took a field trip to a fabric shop to purchase items for making of garment. We visited the hospital to learn the function and cost evaluation of today's medicine, and went to the back to see computers and follow a check through the clearning process.



Making Packaged Cake vs Scratch Cake

Change Machine at Bank

EVALUATION

Testing procedures were inherent in discussion of logs, ability to fit pattern, thread machine (17 parts included), and sew garment, prepare, serve and clean up kitchen after preparing food items. Evaluation was also conducted by teacher observation.

Parent reaction was determined favorable by their willingness to form car pools, help supervise field trips, and help in class sessions.

The success of the program was culminated by the completion of all products and the presentation of a "fun filled night of frolic, fantastic food, and fabulous feats" program which was planned and carried out entirely by students who handled all functions of the evening's program. From observation, it was apparent that students had grown considerably in their ability to determine personal time and money needs, shop comparatively etc. They demonstrated a great willingness to undertake tasks not previously attempted.

RECOMMENDATIONS.

1) More classes should be available to accommodate all who wish to enroll.

2) This program should be made an integral part of regular school program.

RESOURCES

Sears, Pennys, Wards, Globe, Foodway, Safeway Food Stores

BIBLIOGRAPHY

Nutritional Data; New Mexico Nutrition Improvement Society

How To Sew, McCalls

United States Government GED Program on cash vs time buying

ACKNOWLEDGEMENTS

Embudo Elementary School

Miss Dotie Hill, Home Economist for New Mexico Public Service Co.

Mrs. Martha Brasher, Special Services, Presbyterian Hospital

Mrs. Ruth Harrell, Special Services, Albuquerque National Bank

Mr. Frank Mayes, South San Mateo Meat Market

Mrs. Judy Holly, New Mexico Nuitrition Improvement Society

Mr. J. Edwards, Hancocks Fabric Shop

BUDGET

Instruction	based on 80 hours at $6.00 per hour	$504.00
3 Field Trips	Hancocks Fabrics Presbyterian Hospital (2) Albuquerque Nat'l Bank @$14.56	58.24
Fabrics, patterns, notions	$5.50 per student	87.88
Food items		50.23
Misc. materials & supplies		36.27
	Total	$712.00

TITLE: FIFTH GRADE CAREER AWARENESS WITH KINDERGARTEN CROSS-AGE TUTORING, AND DEVELOPMENT OF RECREATIONAL AND WORK SKILLS

SCHOOL: Los Padillas Elementary

COORDINATOR: Miss Evelyn Lujan

PROJECT ASSESSMENT

Nature of the Problem. Students need for improved self-concepts and a need for community participation in school.

Hypotheses and rationale. Child care is a field that we felt fifth graders would be able to find employment in without difficulty, especially if they had training by working directly with the kindergarten children. We also felt the kindergarten children would enjoy more individual attention and profit by it. It was believed that the older students would find success in tutoring and would thus improve their self-concepts. We also felt that the community would be responsive to the schools if asked to participate as speakers etc.

OBJECTIVES

1) Cross-age tutoring with the kindergarten, and acquire skills being used today in modern kindergartens

2) Develop a playground for the kindergarten

3) Have community people speak about their kind of work

4) Take field trips to businesses

5) Develop other skills which might be recreational and/or profitable i.e., hair pin lace crochet, woodworking, etc.

Criterion measures. Evaluation will be based on children's notebooks, personal interviews, products completed, and student drawings and writings.

PROJECT DESCRIPTION

People Involved. Seventy-eight fifth graders, ages 9-12 whose abilities range from Special Ed to superior reading ability--and from emotionally disturbed to mentally stable and self-reliant. There were thirty-two kindergartners, two teachers, one coach, and a number of parent helpers who served in numerous ways. Other teachers spoke to the groups, helped arrange for speakers, movies, time and space, and the Principal gave full support.

Facilities. Two fifth grade classrooms, the kindergarten room, the cafeteria, playground, and field trips.

PROJECT METHODOLOGY

Children were instructed in tutoring and child care by the kindergarten teacher, by parents, by individuals on field trips, by movies and filmstrips, by demonstration and by performing.

Students constructed sand boxes for the kindergarten, and painted two concrete conduits for play equipment. Students began work in the kindergarten in September. Beginning in February more emphasis was placed on career awareness of many different occupations. We explored these according to suggestions of students. Those explored included beauticians, barber, social worker, computer careers, geology, truck driving, piloting etc.

Field trips.

TVI

St. Joseph's Hospital

Mountain Bell Training Office and Museum

Fire Department

Bank of New Mexico

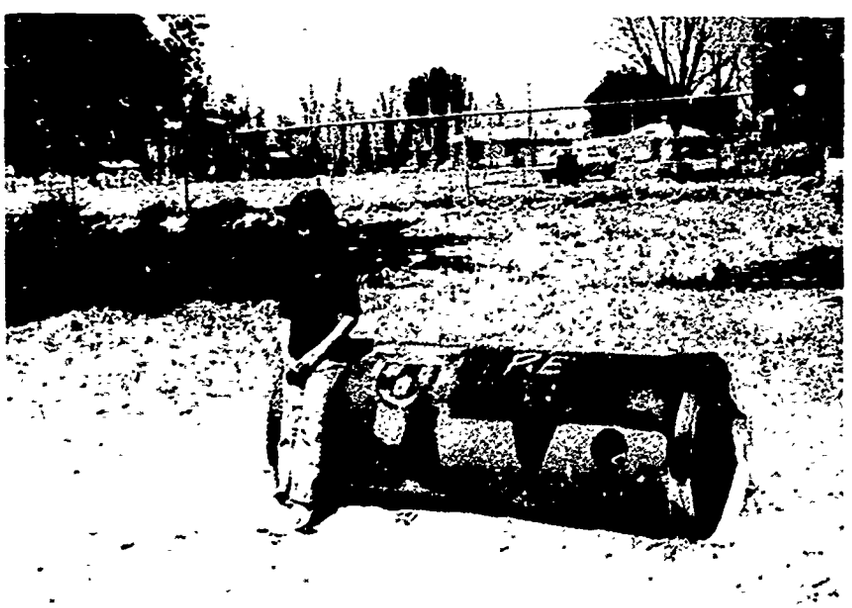
City Hall, including Police Department
a court room, and the Personnel Deprtment

Rainbo Bread Co.

Albuquerque Indian School

Rio Grande High School (2 trips)--a real high light!

Other activities. Dancing, typing, hair-pin crochet and lacing, woodworking. We made geo-boards and playboards for math and blackboards for two classes. We also made toolboards.



EVALUATION

Measuring devices used:

1) Teacher observation

2) Discussion of plans and follow-up

3) Questions asked by pupils

4) Attitude of other teachers who asked how to start similar programs.

Conclusion. Pupils feel better about themselves, some change in student attitude and performance. And the community did come in to help on a limited basis. Career awareness attitudes and information were substantially sharpened. It was interesting to note that not all children enjoyed working with the kindergarten class--some complained of kindergarteners behavior.

RECOMMENDATIONS

1) Always seem to need more time for planning

2) Suggest children have more to say about trips taken and materials and activities.

ACKNOWLEDGEMENTS

Fifth grade students of Los Padillas

Other teachers on staff, the Principal, and the secretary

Parents of students

Del Valdez

Leroy Brannon

Tony Blasi

RESOURCES

Headstart materials from Arizona

Materials furnished by APS Vocational Department

Materials furnished by Mr. Del Valdez's office, i.e.,

filmstrips, booklets, etc.

BUDGET

Tools, materials, books, etc.	$402.38
3 half-day field trips, 3 full day trips	106.00
Total	$508.38

TITLE: SELF-HELP PROJECT IN FOODS AND NUTRITION

SCHOOL: McCollum

COORDINATOR: Dorothy M. Murray

PROJECT ASSESSMENT

Nature of problem.

1) Many working parents whose children are expected to prepare lunch and start dinner before parents reach home

2) Lack of knowledge of children regarding balanced meals

3) Many children not aware of the different careers in the field of Home Economics

4) A majority of the school population not interested in subjects as science and social studies

OBJECTIVES:

1) To emphasize the dignity of work

2) To explore different kinds of work especially in Home Economics Field as well as others for both men and women

3) To learn the value of eating a balanced diet

4) To learn how to set a table and use good table manners

5) To learn to cook simple luncheon dishes

Criterion Measures. Observation by teacher of students desire to taste different foods and try various cooking techniques.

As a further means of evaluation, formal and informal testing will be conducted at the end of the course to see what learning had taken place in these areas:

1) Menu planning

2) Use of good table manners

3) Information on Home Economics Careers

PROJECT DESCRIPTION

People Involved. There were two classes of thirty-three each (too many students) with one teacher (too few), and four speakers, 1 Home Economist, 1 Banker, 1 Petroleum Representative, and 1 Vocational Counselor (East Area). Students ranged in age from 9 - 10, and were all fourth graders. Their parents are low middle socio-economic level, some on Welfare, and generally they show little interest in their children's scholastic affairs.

Facilities. We used a regular classroom, with one range, and one sink, but no hot water. Water had to be heated in a tea kettle. Supplies were kept in another room due to lack of space.

PROJECT METHODOLOGY

The classes met for 1 hour and 45 minutes twice weekly, and studied these kinds of subject matter: The Five Nutrients, their names, sources, and uses; The Four Food Groups; Menu Planning; Table Setting; How to wash dishes; How to use measuring devices; Preparation and serving of different luncheon dishes.

Students were instructed in how to cook economical luncheon or supper main dishes primarily. The following techniques were used during sessions:

1) Students copy recipe - Discuss food value, cost, and preparation

2) Demonstration of methods of recipe. Discuss instructions in detail.

3) Class divided into small groups

4) Group 1 cooks food

5) Group 2 sets table and serves food

6) Group 3 cleans up

7) Students not in working group, make Four Food Groups notebooks.

8) When food is eaten - progress of notebooks is checked.

Activities

1) Films: Dairy Council - Six well done films in color

2) Field Trip: Jill's Bakery

3) Four speakers

EVALUATION

Pre and post written tests were administered. By observing students it was noted they looked forward to lessons and showed much interest. Parents were enthusiastic about the classes. Other teachers donatedequipment and seemed to feel that children benefited from the program.

Conclusions. All students learned to set a table. Many mastered serving. Most learned to use better table manners. Practically all tasted and found they like some different foods, and many have used their recipes at home.

RECOMMENDATIONS

1) Have smaller classes so that all can be involved in lab experiences at one time.

2) Schedule field trips early in year

3) A regular kitchen sink with running hot water would facilitate clean up.

ACKNOWLEDGEMENTS

Mr. M. J. Montman - Suggestions and encouragement

Mrs. Betty Lou Snapp - Help in securing a range, materials

Big Idea Workshop - Dairy Council

Mr. Julio Chiarmonte - films of careers of the future

Teachers at McCollum, Principal, and secretary and teacher's aide

BIBLIOGRAPHY

"How Your Body Uses Food"

"The Great Vitamin Mystery"

"Big Ideas in Nutrition Education and How to Teach Them"

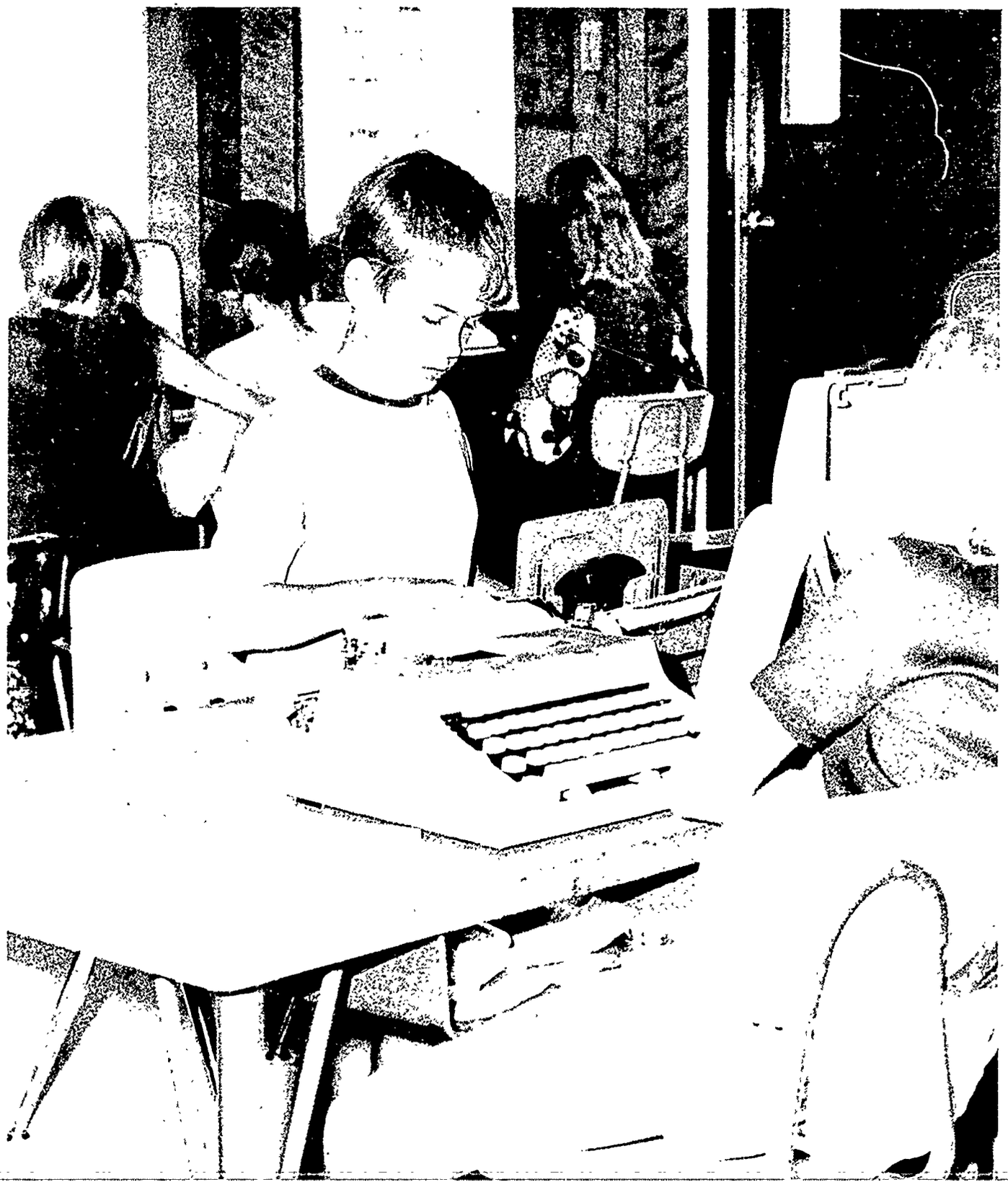
BUDGET

Utensils, appliances, perishables, secretarial help, tapes, and field trip	$437.42

SECTION VII

OFFICE EDUCATION

(Includes projects in which primary emphasis is on typing and office procedure.)



TITLE: TYPING IN THE WORLD OF WORK

SCHOOL: John Baker Elementary

COORDINATOR: Frances Pepmueller

PROJECT ASSESSMENT

John Baker Elementary School has a unique program which encompasses both fourth and fifth grade students. The program is an Elective Program in which students choose subject areas they want to explore. Typing was one of the areas students indicated an interest in.

Typing was offered as an elective subject, however, each student had to supply his own typewriter. Consequently many who wished to take typing would not have been able to if it had not been for the Mini-Grant funds which enabled us to lease some machines, thus enabling 30 more students to take typing.

OBJECTIVES:

1) To develop the child's self-concept.

2) To promote positive attitudes toward work and doing a job well.

3) To teach specific concepts fundamental to our changing way of life.

4) To help students understand the individual's role in vocational choice.

5) To develop the concept that workers depend on one another.

6) To realize that personal qualities as well as skills are necessary for most jobs.

7) To teach how to type using the standard keyboard

8) To encourage students to type accurately and increase their speed.

Measuring devices.

1) Interest tests

2) Attitude tests

3) Proficiency tests

4) Reports

5) Posters

PROJECT DESCRIPTION

People Involved. Thirty students of the fourth and fifth grades who came from an upper middle class economic group, and ranged in age from 9 - 11. There were two teachers.

Facilities. Two rooms of an old administration building were used. One room was approximately 9' x 12' and the other was 8' x 10'.

PROJECT METHODOLOGY

Typing was taught for 40 minutes, three times a week. Students used typing books purchased from funds of the Mini-Grant, and we also had records for use with head sets for individual instruction.

The SRA Work Appreciation Lab was available for projects and for securing information to put on posters.

We had three speakers: a legal secretary, the school secretary and a typist. We also took a field trip to a dentists office to interview the secretary there and see her at work.

Students practiced math concepts, spelling, punctuation, and reading skills in the course of learning to type as well as in their research to find information about different office careers. Students made considerable use of the SRA WORK materials as well as researching in the library in order to make career posters.

EVALUATION

Evaluation consisted of tests from books, self-evaluation, and comments from parents as follows:

"I have been very pleased with the entire elective program at Baker and especially the typing classes. I do hope it will be continued next year."

"I am very pleased and impressed with this course. Teddi enjoys it very much and is learning because it is fun, not work."

"Because Sherri was able to take typing she was accepted last week into a class at Southwest Business College. She will be taking a typing class with high school students. The director of the school accepted her only because she had taken typing at John Baker."

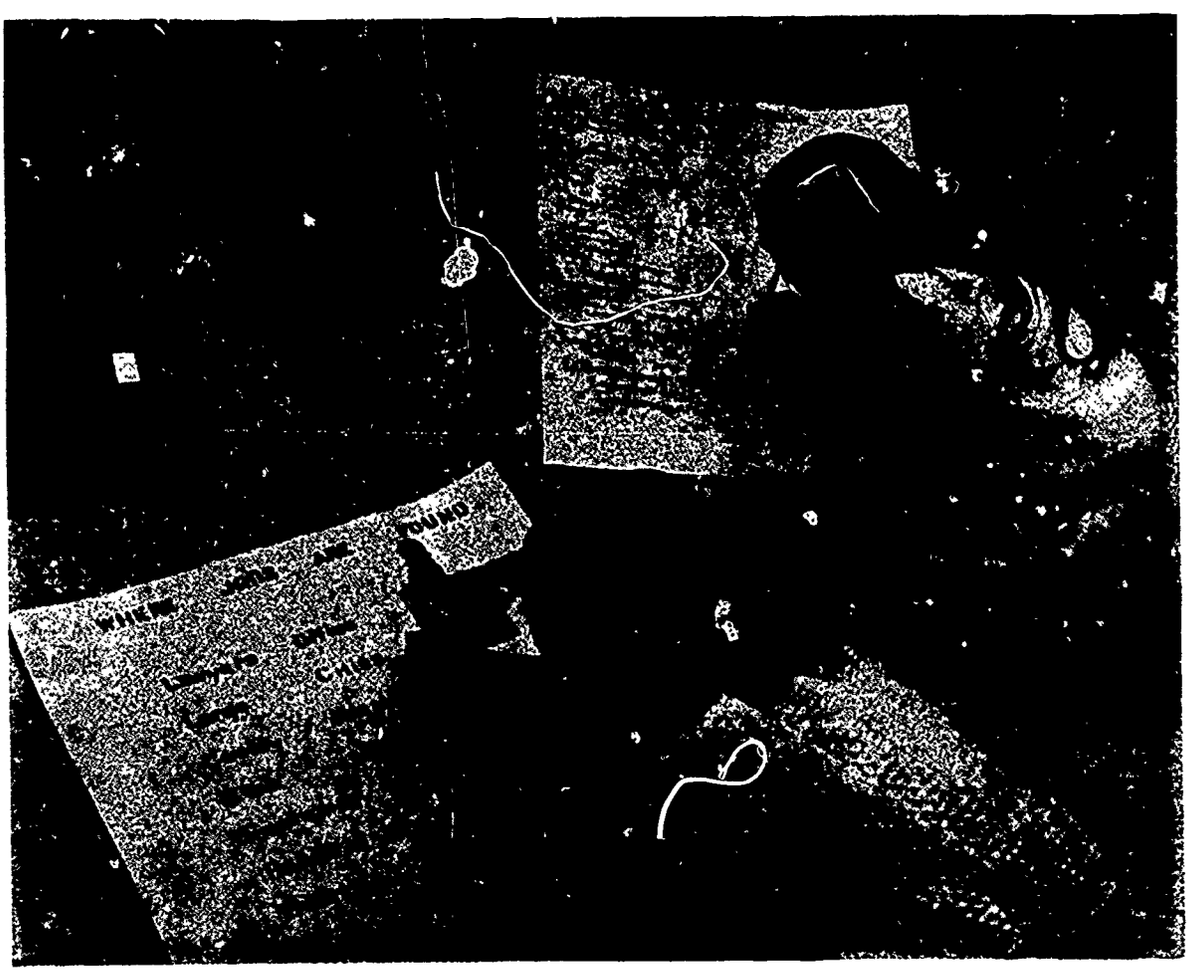
Conclusions. I feel, as our parents have felt, that our program was a big success. Children were able to measure their own progress. They made reports and posters showing how typing is important in a variety of occupations. They brought in articles and clippings from magazines and newspapers. They read the Want Ads for notices of jobs that required typing. They were aware of National Secretary Week, and they did remarkably well in their typing.

RECOMMENDATIONS

If it were possible, it would be helpful to have typewriters all of the same make and model. This would make it easier than teaching umpteen different models. I would suggest that the machines be new portable typewriters.

BUDGET

Lease of 10 typewriters from Feb. -June	$350.00
30 - Student books - Typing Our Language	81.00
3 - Teacher Manual - Typing Our Language	8.10
1 - Record	9.95
"The Living Method Typing Course" by Lewis Robins and Reed Harris. 1 Guide	6.50
Supplies, ribbons, film and developer	33.90
Total	$489.45



Making Career Posters

TITLE: WRITTEN AND ORAL CORRESPONDENCE IMPROVEMENT

SCHOOL: Embudo Elementary

COORDINATOR: Kay C. Lamb, Teacher

PROJECT ASSESSMENT

Nature of the Problem. So much emphasis today is placed on academic progress, while so little is placed on the practical application of everyday world of work.

Hypotheses and rationale. The solution was based on the premise that intrinsic motivation is actuated by information and application, leading to experimentation and exploration, followed by a degree of successful performance with concrete results.

OBJECTIVES:

To initiate motivation to learn a new skill by learning the keyboard, parts of machine, typing accessories, correct spelling, grammar and punctuation in all forms of written and oral correspondence.

Criterion Measures. A dexterity test which required students as a pre test to move toothpicks a distance of one foot, using alternate hands within a time frame of 30 seconds. The results:

Pre test	Highest:	18 toothpicks
	Lowest:	7 toothpicks
Post test	Highest:	100 tocthpicks
	Lowest:	43 toothpicks

Students were also given a pre and post test that required typing the sentence "Now is the time for all good men to come to the aid of their country". They had a time limit of one minute. During pre testing only one student was able to accomplish this, while at the end of the course all students succeeded in typing the sentence more than once during the time frame.

Students were also required to write a cursive paragraph of at least five complete sentences within 20 minutes. At the end of the program, all students were asked to type, with errors corrected, grammar, syntax, and structure improved, the same paragraph they had written in cursive writing at the beginning. All students improved on the original at least one letter grade.

PROJECT DESCRIPTION

People Involved. There were thirty-one students, ages 9 and 10, from the fifth and sixth grade, and one instructor.

Facilities. We used the typing room at Hayes Jr. High, which is equipped with machines. We also took a field trip to a bank, hospital, and fabric shop.

PROJECT METHODOLOGY

The class was conducted for ten weeks, forty sessions of 30 minutes each, four days a week.

Subject matter included: learning keyboard, parts of machine and accessories, forms, timed tests, principles of typing and written communication, including forms, reports, logs, menus etc.

Teaching methods were demonstration, explanation and application.

EVALUATION

Dexterity test and timed tests and well as results of paragraphs indicated the objectives of the program were met.

Parent reaction was enthusiastic, and parent participation and observation was sustained throughout the pilot program.

Teachers at Hayes Junior High indicated that our students were more careful with the typewriters and no damage was sustained.

Students achieved a median typing speed of 20 words per minute with 1 error, with the lowest score on a timed one-minute test being 12 w/p/m and the highest being 38 w/p/m/.

The effect of the program in changing attitudes, behavior and performance of students can be indicated by the number of completed projects, knowledge of value of typing, and demonstrated willingness to learn a new skill outside the scope of regular school activities in an after hours program.

RECOMMENDATIONS

1) That more students who wished to participate be accommodated.

2) That such a program be made an integral part of regular school program.

REFERENCE SOURCE

Hayes Jr. High Typing Manual

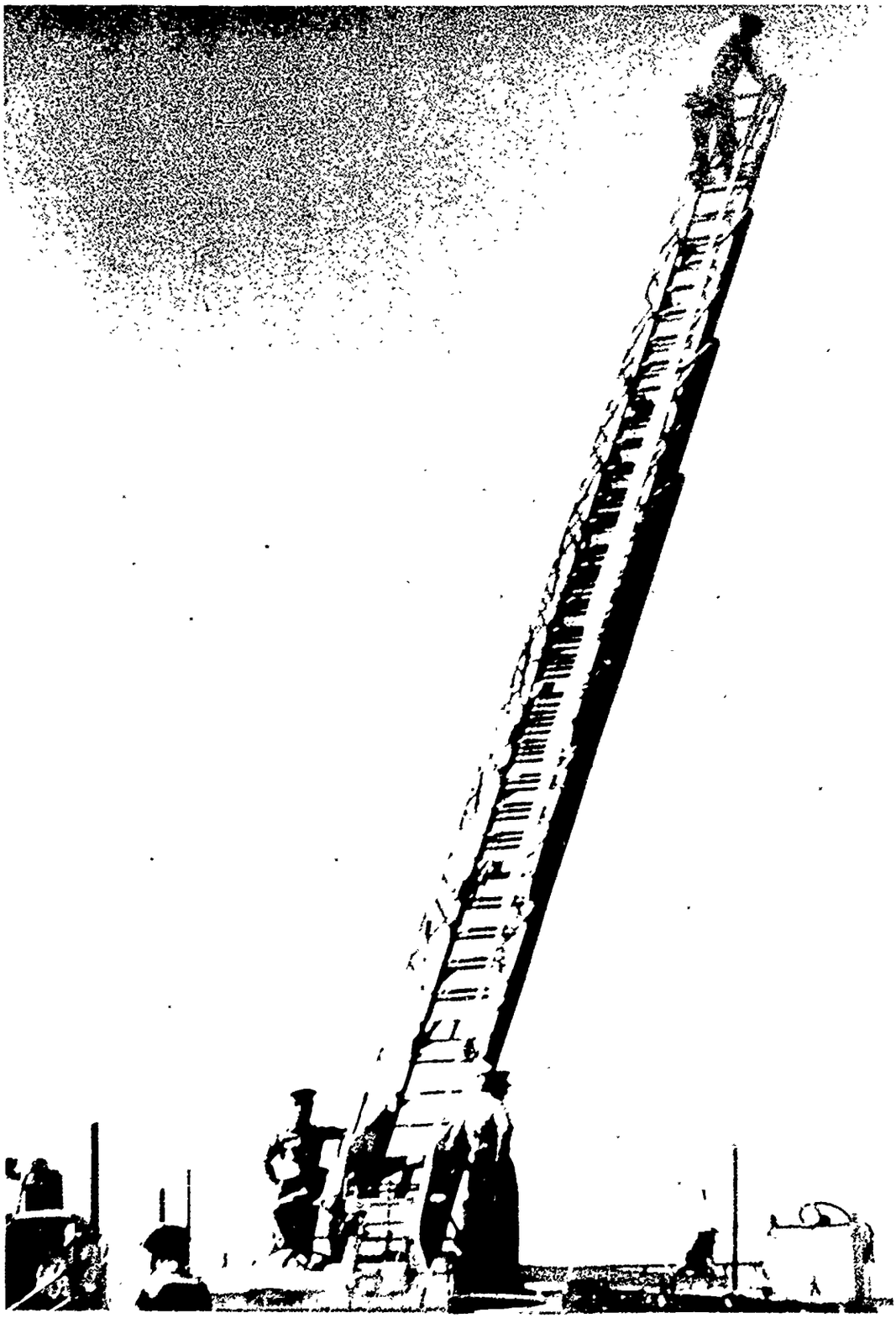
BUDGET

Tapes for home practice (set)	$232.50
Instruction, based on 35 hrs at $6.00 per hour	210.00
Supplies	4.50
	$447.00

SECTION VIII

CAREER COMBINATIONS

(Includes projects which integrated career awareness with all phases of curriculum learning and included work experiences in many areas such as arts, crafts, industrial arts, office education, business management, home economics, ecology and medicine.)



TITLE: EXPLORING THE WORLD OF WORK

SCHOOL: Apache Elementary

COORDINATOR: David C. Apple, Teacher

PROJECT ASSESSMENT

Nature of the Problem. Who am I? What am I? What will I be? What can I become? These are the questions in the minds of the intermediate level students of Apache Elementary. These are the very vital questions that they can answer for themselves once they have opportunity to explore their own abilities, and interests, as well as discover the career possibilities available to them.

Hypotheses and rationale. It was believed that students often improve their school work if they have a sense of direction. It was hoped that if they could have opportunities to discover themselves and their opportunities, they would develop a sense of direction.

OBJECTIVES

1) The student will extend his occupational horizons by becoming knowledgeable about a variety of occupations as shown by his understanding of and ability to talk about careers.

2) The student will show that he has developed wholesome attitudes toward work by his behavior in work situations.

3) The student will indicate that he has developed proper attitudes toward all occupations by the manner in which he conducts himself in various career activities.

4) The student will show that he is familiar with occupations outside his community by listing and explaining such occupations.

5) The student will be able to name families of jobs and jobs related to each other.

6) The student will exhibit his curiosity about occupations by being an active participant in all career activities.

7) The student will become familiar with some fundamental construction processes, materials, and tools through a "hands-on" experience in the Industrial Arts Workshop.

8) The student will show an awareness of himself as an individual and how he fits into the world of work by his change in attitudes and improved self-concept as exhibited by his behavior.

9) The student will realize the value of educational experiences and school work as a vital step toward preparation for an occupation as evidenced by his attitudes toward school and his willingness to participate in tasks related to future jobs.

10) The student will demonstrate an increased security about his future through his behavior.

11) The community will become actively involved through the use of knowledgeable parents and resource people who will volunteer their services.

PROGRAM DESCRIPTION

People Involved. Over three hundred 4th, 5th, and 6th grade students were included in this project, with eight teachers.

Facilities. The project was conducted in a large Open Space Pod, and had a separate barracks building for the woodshop and math laboratory.

PROJECT METHODOLOGY

The project is based on the concepts of heterogeneous, mixed age grouping with ungraded instructional materials and activities in an individualized program.

In the instructional phase of the Career Awareness Program there are four teachers that conduct hourly classes twice a week for eighteen weeks. This involves all the students of the Open Space Pod. In conjunction with this, a group of sixth graders meet once a week for a two-hour session in the Industrial Arts Workshop for six weeks. This allowed one hundred sixth graders to participate in this segment.

During their instructional periods, students can explore many career possibilities according to their interests. To help them, they use unit work including readings and written activities from the SRA World of Work Lab and Jobs for the Future. They participate in disucssions using career transparencies, films, and filmstrips. They are involved in activities such as conducting personal interviews with people in the neighborhood, filling out job applications, and role playing.

A variety of different crafts centers provide students an opportunity to try ceramics, pottery, leather tooling, and any number of different activities.

Every other week during the instructional periods, students listen to guest speakers from various business, industrial, and service occupations.

An important phase of the program was two all-day field trips involving all 330 students who visited twenty-five places in the community. This necessitated five buses, however, each busload was divided so that there were about twenty children visiting at one place at one time.

The Industrial Arts shop has provided opportunities for students to learn safety, how to use tools and materials, how to clean up and take care of tools, and how to help one another. After initial instruction, students were allowed to choose individual projects to make from instructions in notebooks. Some of these were, bird houses, checkerboard, animal cage, stool, book shelf, cart, submarine, lamp, xylophone, recipe holder, jewelry box, coffee table, tool box, and an ant farm.

There were a number of other career oriented classes at Apache including automotive mechanics, introduction to architecture, business and applied basic mathematics, sewing, cooking, journalism and a host of crafts.

Speakers.

Mr. Frank Gonzales New Mexico Steel Co.	Electrical and hand tools-display and discussion
Mr. Dale Henry Albuquerque Wildlife Assoc.	Film and discussion
Mr. R.W. Russell Albuquerque Citizen's Radio	Film and discussion "Mountain Safety"
Mrs. Parker Kallach Keep America Beautiful	Films"Litter Monster" "Lassie"
Dr. Gary Bitter Arizona State University	Math professor. Talk "Mathematics"
Dr. David McCoy Mr. David Carter Associated General Contractors	Films and discussion-large constructions
Mr. T. Hefner J.G. Maloof Co.	Film on "Recycling"
Vista Volunteer	Talk about what Vista does
Mr. Haskell Wright Carpenter	
Mr. Jerry Khume Plumber	

At the First Grade Level. All grades at Apache are using SRA Career education materials. One such class using "Families at Work" carried out an extensive program including speakers who were parents who came in to tell about their jobs. Students learned such terms as "producer" and "consumer". While learning about "Tools and Machines" the students took a field trip to a new housing area to see tools and machines at work.

These children also learned to count money, and learned about banking by conducting a popsicle sales. Each child earned $1.75 which he deposited in his own savings account.

Other Speakers Not Listed Previously

Mr. Julie Chiaramonte TV-I Counselor	Film and talk
Lt. Paul Aden Albuquerque Fire Dept.	Film, talk and demonstration
Mr. Noskos Editor, Tribune	Talk with Visuals, demonstration
Mr. Orin Buchleiter Consultant, Industrial Education	Talk and demonstration
Mr. James Gallagher F.B.I. Agent	Talk and discussion
Mr. Robert Morris Service Manager Ed Black Chevrolet	Films and talk
Mr. Baggett Potter	Talk and demonstration
Mr. Karl Franz Farmer	Demonstration Sheep Shearing
Mr. Douglas Carmichael Drug Education Consultant	Talk and discussion
Dr. Edward Parnell MD	Talk and Discussion
Sgt. Lewis & Sgt. Velez 58th [illegible]ther Reconnasaince Kirtla..d Air Force Base	Talk and demonstration
Mr. Pike Meterologist Weather Bureau	Talk and discussion

Field Trips.

County Court House	St. Joseph Hospital
City Hall	Levi Strauss and Co.
Police Building	U. of New Mexico (Museums)
Old Town Shops	Albuquerque International Airport
Mountain Bell Telephone Co.	Holiday Inn East
TV-I	Ramada Inn
Welborn Paint Company	Santa Fe Railway Station
Barcelona Lumber Co.	Alameda Airport
Presbyterian Hospital	Albuquerque Moving & Storage Co.
Baldridge Lumber Co.	Rowland Nursery (and others)

EVALUATION

On the basis of pre and post questionnaires, the children showed a gain in knowledge about kinds of careers, related careers, and career requirements.

Since many of the objectives of the Career Awareness Program deal with attitudes, any evaluation of these is solely subjective, based on the instructors' observations. There seems to be youngsters who, because of the program, feel that there is going to be a place for them in the world of work and that there is dignity in any career they may wish to pursue.

It is clearly evident that the students are interested in learning about the various occupations as shown by their attentivness to the speakers in the classroom and on the field trips. It is also easy to recognize that the sixth graders are enjoying the "hands-on" experience, and their knowledge and progress can be seen in their finished projects.

The program is successful in getting community members involved through the use of guest speakers at school and through visits to the business community. An interest was also observed in some junior high students who spent many hours on weekends setting up the workshop.

This program, hopefully, is giving our students incentive to work toward a realistic and promising goal--their occupation.

RECOMMENDATIONS

Further Development and Expansion of Program

1) Use of the Mobile Career Orientation Lab Unit the second six-week period of 1972-72.

2) Extension of program for grades one through six using Dunn and Payne's World of Work.

3) Use of new Mathematics Application Kit which relates math to the world of work, having business and applied basic mathematics as the core.

4) Opening of Industrial Arts Workshop for the summer.

5) Making of additional school projects, i.e. puppet stage, display cases, a greenhouse, a store, and a portable stage.

6) Development of a motor center using the 12 motors donated by Sandia Corporation and parents.

7) Development of an electrical center.

8) Further development of the math lab with materials and manipulatives made by students.

9) In-service workshops for entire faculty.

10) Introduction to architecture using Forrest Wilson's Architecture, A Book of Projects for Young Adults.

11) Setting up a newsroom center to publish school paper.

12) Setting up a plastics center

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"Leathercraft" Fred W. Zimmerman
"Metalworking" T. Garnder Boyd
"Plastics" D. W. Cope
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ACKNOWLEDGEMENTS

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APS Personnel: Mr. Orin Buchleiter, Mr. Julio Chiaramonte, Mr. John Williamson, Mr. John Mondragon
Mr. Raymond Wilkinson, Mr. Norman McFall and Mr. Robert Geilenfeldt.
Mr. Harry Kroll--arrangements for speakers.
Sandia Base Salvage Yard
Albuquerque Public Schools Warehouse
Mr. Bill Jones
Dar Tile Co., Paxton Lumber Co., and C.G. Smith Furniture
Mr. R. Blaine--narrator of promotional slide-tape presentation

BUDGET

Industrial Arts Shop Tools, and
Leatherworking tools.....$492.80

TITLE: CAREER AWARENESS FOR KINDERGARTEN CHILDREN THROUGH THE USE OF PROP BOXES

SCHOOL: Armijo Elementary

COORDINATOR: Emily Brudos, Teacher
Karen Mitsoff, Teacher
Judy Schiefer, Teacher

PROJECT ASSESSMENT

Nature of the Problem. (1) It appeared that the vocabulary development of our kindergarten children was behind what would be considered "normal". (2) Many of the children exhibited low self-esteem while discussing their fathers' occupations. (3) All of the children had little or no knowledge or awareness of the many varieties and types of occupations in the world. (4) Great interest was exhibited when an unfamiliar occupation was mentioned in class.

Hypotheses and rationale. We had hear about Prop Boxes and strongly believe tnat their use with our children would aid us in dealing with the four problems mentioned above.

Description of a Prop Box. A Prop Box is composed of specialized items related to a specific occupation or profession. It is a box of real things from the real world. As an example, a Prop Box for the occupation of beautician would contain a hair dryer, hair nets, bobby pins, curlers, shampoo, towels, combs, brushes, and wigs, as well as simply made uniforms. Students, then, have access to different occupational Prop Boxes and have opportunity to role play many different careers.

OBJECTIVES: The student will:

1) Correctly identify a given Prop Box by viewing the objects it contains and the occupation it represents.

2) Use the objects in any given Prop Box in a manner which indicates that he understands that these objects are used for that particular occupation.

3) Be actively involved in learning about occupations by role-playing the occupation.

4) Be able to identify different occupations from pictures of persons in different occupations.

5) Correctly match a picture of a person, or persons, in a given occupation with pictures of the "tools" of that occupation.

6) Return all items to the correct Prop Box after playing with same.

7) Correctly name at least five tools or objects of any given Prop Box he has previously used in role-playing. (The teacher and teacher aide, through daily recorded observations, will keep track of which Prop Boxes each child has used.)

Criterion measures or methods of evaluation.

1. Pre and post testing on an individual basis.

2. Daily recorded observations of the students role-playing

PROJECT DESCRIPTION

People Involved. Three classes of kindergarten children, a total of 83 students, mainly five and six year olds who were

primarily Mexican-Americans from a low socio-economic area. There were three kindergarten teachers and one teacher from the University of New Mexico. Many other persons assisted on field trips.

Facilities. Classes were conducted in three regular classrooms as well as on covered walkways outside of the rooms. The Prop Boxes were kept in the classrooms.

PROJECT METHODOLOGY

Since all kindergarten programs function primarily in a free-choice activity environment, the use of our Prop Boxes is a continuous daily activity. As one child tires of enacting a particular vocational role and moves to another activity, others move in to take his place. Teacher-directed instruction varied from a film strip on a particular vocation which would involve the entire class, to a story involving, perhaps, only three or four children playing with, for example, the farm kit. Instruction is continuous with farm pictures in the corner where the farm kit is displayed; the fashioning of paper motorcycles or clay cars when the mechanics kit seems most popular.

Our Prop Boxes were constructed for auto mechanics, carpenters, electricians, nurses and doctors, and cooks, to name only a few. A total of twenty boxes were constructed.

Frequently we introduced a new Prop Box by first visiting related businesses on field trips. These trips included:

1. Farm
2. Hospital
3. Post Office
4) Grocery Store
5) Greenhouse
6) Fire Station
7) Lumber Yard

Additional exposure to visiting speakers, books, films, film strips and the actual tools of each occupation further reinforced learning about careers.

Our primary concern has been to help youngsters to recognize the existence of many vocational opportunites. We hope through the enactment or "trying on" of these various roles that the children will not fear to dream of themselves in responsible, useful occupations and in adult life, assume those positions.

EVALUATION

Pre testing was done on an individual basis to determine what, if anything, each child knew about each vocation before it was introduced to the children. Post testing used the same procedure in order to measure the growth in each child's learning and understanding about each occupation.

A third type of evaluation tool was daily observation by the teachers and teacher aides. These observations were recorded on a checklist to enable us to tell, at a glance, which children were using which Prop Boxes and to what extent. These records

also aided teachers in planning for extended learning experiences and field trips according the the children's interests.

Conclusion. We feel that this pre-vocational project has proven very successful in getting our kindergarten children actively involved in learning about different occupations and professions. The Prop Boxes have proven themselves invaluable in aiding the teachers in dealing with the four deficiencies noted previously.

RECOMMENDATIONS

1) We would recommend that recipients of Mini-Grants be given direct purchasing power, eliminating the need for two trips to the store (one to price objects, the second to purchase). We found this to be most laborious,for example,when securing items for Prop Boxes--potato peelers (Cook's Kit), toilet plungers (Plumber's Kit) etc. Often by the time we received P.O. numbers, the store was out of the needed item, thus we had to visit more stores, price more items, etc. This was found to be very time consuming.

2) We would also recommend that funds be made available annually for the replacement of expendible items in Prop Boxes such as paper, pencils, band-aides, batteries, food, etc. It is also anticipated that as new vocations appear, new Prop Boxes should be added to the collections.

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A Paper entitled, "What is a Prop Box?"

ACKNOWLEDGEMENTS

We gratefully acknowledge the following people for their continuous support and efforts to make this project successful:

Phil Peterson - Teacher

Eloisa Gutierrez - Teacher Aide

Lou Sanchez - Teacher Aide

Mary Rose Vicki - Teacher Aide

Jimmie Lueder - Principal, Armijo Elementary School

The parents.

BUDGET

Prop Boxes:	Dentist	$ 1.28
	Policeman	22.53
	Astronaut	11.46
	Plumber	11.45
	Electrician	15.72
	Fireman	53.17
	Florist	4.00
	Doctor & Nurse	27.22
	Mechanic	4.17
	Barber	3.33
	Garbage Collector	.47
	Custodian	7.25
	Secretary	.73
	Farmer	29.07
	Cook	81.05
	Beautician	18.33
Other supplies:		15.30
	Typing	15.00
	TOTAL	$ 221.53

(This project and a woodworking project at Armijo Elementary divided Mini-Grant funds.)

TITLE: CAREER AWARENESS THROUGH OPEN EDUCATION

SCHOOL: Cochiti Elementary

COORDINATORS: Barbara Cooper
Dolores Montoya

PROJECT ASSESSMENT

Nature of the Problem. Knowing that self-understanding will be the key factor in making career choices, we hoped to provide opportunity for each student to examine his personal traits, abilities and goals, as well tc see how he related to others.

Although career awareness was a vital part of our program, we felt that reading about careers would be a very minor part. It was felt that it was much more important to involve students in experiences and activities that would promote meaningful understandings and an awareness of the desired human traits, skills, abilities, and the training needed and services rendered in each career field.

Hypotheses and rationale. To do this, the careers were divided into seven very basic categories. This was to provide a base from which to extract meaningful classroom experiences for each student depending on individual interest and ability. These categories were cooking, carpentry, electronics and mechanics,

medicine, sewing, merchandising, and a braod category, "other". This last category involved many varied jobs that were not part of the original plan but which developed from the children's experiences and new interests.

Purpose. The two sixth grade classes that participated in the career awareness project are involved in "open education." The learning environment is rich in learning resources and students are encouraged to accept responsibility for their education. This is done through allowing freedom for self-selection, self-pacing, and self-evaluation. It was felt that such a classroom would be a perfect laboratory for career awareness since it would provide many opportunities for involvement in the many activities already taking place there.

OBJECTIVES:

1) To develop appreciation and respect for people of all vocations and an understanding of the interaction and interdependence of all people in our society.

2) To develop appreciation for and an understanding of how school subjects relate to what people do every day outside of school.

3) To develop an early awareness of vocational opportunities according to individual capabilities and interests.

4) To provide children an opportunity to solve problems and develop personal resources that will place them in command of the technology with which they will have to live.

5) To provide opportunities for fulfillment of basic needs - self-worth, achievement, and love as a social responsibility.

PROJECT DESCRIPTION

People Involved. Two classes of sixth grade children, averaging eleven years of age, fifty-four students in all, with two sixth grade teachers, aides, and parent volunteers.

Facilities. The open space classroom is hugh and is divided with one half being used by lower elementary classes and the other half for the sixth grade classes. Two adjoining smaller rooms with large glass windows were ideal for a "noisy" room (cooking, sewing, and carpentry) and a "quiet" room (individual stu , with tape recorders, etc.)

PROJECT METHODOLOGY

Following a pre test, the study of careers was begun as an integral part of the learning experiences in the classroom. Learning areas where children could experiment with cooking, sewing, carpentry, electronics and mechanics, home nursing and actual selling and buying were provided. The activities required that students use necessary skills in mathematics, language, and social and scientific concepts in order to follow instructions and accomplish individual and/or group goals. The Widening Occupational Roles Kit, film , field trips, parent participation, and use of community resources supplemented classroom activities.

A major supplement to classroom learning was the mobile vocational unit which was located at the school for a period of six weeks. The mobile laboratory became an extention of the classroom instead of an isolated, extra activity. What happened in the laboratory, under the competent leadership of a man skilled in many vocational trades, John Williamson, totally related to what was also going on in the classroom. It was a total, coordinated effort.

Because each child worked in his own area of interest and each area was unique in activities experienced, it is necessary to describe each area separately.

Carpentry. Carpentry was a popular activity both in the classroom and in the mobile lab. Although many students were interested in careers unrelated to carpentry, many of them chose to construct projects in the carpentry area. Many tried to relate their careers of interest to carpentry. A girl made a book shelf so that she could organize her books. She wants to be a nurse. Two boys who want to be artists made drawing boards. These were used later whey they opened an "art school" in the classroom. Three girls made wood soles in the mobile lab and then later attached fabric to make clogs. Some girls who want to be teachers made wood puzzles and games for little children.

A store built by the boys has been the most prominent feature in the classroom, and provided actual merchandising experiences.

Cooking. Children were given the opportunity to plan and develop menus, budget, explore alternative recipes, consider types of ingredients used, observe chemical changes and physical changes, and to evaluate their products.

Reading and following directions in sequential steps, measuring accurately, and cleaning up were all a part of the learning process. Occassionaly recipes included measurements in improper fractions which students had to convert in order to measure.

Students took a field trip to a near-by bakery, talked with school cafeteria workers and interviewed waitresses, waiters and bus boys.

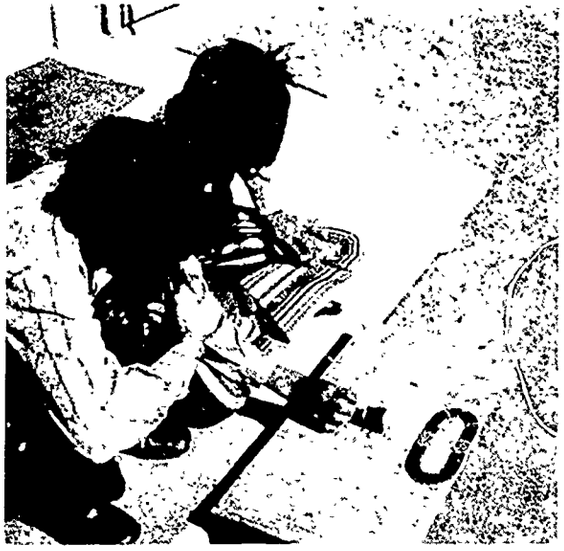
Cultural awareness involves the appreciation of the contributions made by all peoples. Accordingly the students prepared foods introduced by the Spanish-speaking, Indian, and other New Mexicans. This led to a better understanding of the importance of the restaurant business as a source of job opportunities.

Electronics and Mechanics. Tearing apart an old gasoline engine and putting it together in perfect working order was a very satisfying experience for many of the students involved in this project.

Students took a field trip to Rust Tractor Company and learned

about diesel engines, fuels, heavy equipment, and the jobs related to them.

An employee from the Maintenance and Operations Dept. of APS, Mr. Apodaca, was an excellent instructor of electronics and helped the boys build a crystal radio set.



A field trip to Rio Rancho Estates gave students some insight into the operation and use of computers.

Medicine. This was another popular career choice especially among the girls interested in nursing. They took a field trip to the University of New Mexico Medical School, had medical students come to the school to conduct follow-up sessions, had a nurse show sex education films, and had their blood typed. Various kinds of medical careers including technicians in hospitals and laboratories were researched.

Merchandising. Originally, it had been planned to have a little store in the classroom as part of the math interest center in order to provide real application of mathematical concepts. However, the boys interested in carpentry decided to build a store which turned out to be much more elaborate than anticipated, complete with an electric light, shelves, and an old cash register, painted bright red.

The big idea of the store, developed into big business. Students applied for and were interviewed for jobs (manager, clerks, custodian, bookkeeper etc.) Meetings were held; inservice training for those hired was conducted. A field trip to Bellas Hess Department Store gave students an opportunity to work with their counter-part members of the store and receive valuable training.

The mother of one of the students gave bookkeeping lessons so that children could learn to make entries in the ledger. The products sold at the store included pencils, paper and donated paper-back books. Much was learned about expense accounts, sales, credits, debits, profit, loss, and how to work with others.

Sewing. Parental involvement was the key to the success of the sewing activities. The mother of one of the students provided instruction in all the basic skills. During a field trip to Levi Strauss Company, the children were able to make first hand observation of the many jobs available in this field.

Other Careers. A discovery of the interrelatedness of the world of work and an in-depth study of jobs and job families led students to an awareness of the multitude of career opportunities. Much of what happened in the classroom evolved from field trips. For example, the class was introduced to such careers as real estate, engineering, contracting, interior design, architecture etc through a visit to Cochiti Lake. As a result students designed

homes, offices, and schools. Others designed the interiors using old catalogs as guides. Then the plans were sent to their landscaping firm where the final touches were added before going to the art agency where the artists' conception of the structure would be drawn up.

As students became aware of their dependence on others, an employment agency was put into operation by two female students. They screened applicants, conducted interviews, tested their proficiency in the type of work they were seeking, and put their names on file. Then other students came to the agency for help in various subject areas. The girls would then give them a letter of introduction to one of the "experts" in the area where the client needed help.

Two boys decided to set up a travel agency and plan Easter trips, and later summer trips. They computed mileage, amount of gas needed, cost of meals and lodging, etc. Much research went into the project since the age and make of the car affected its performance. The boys soon realized that they needed a secretary. They hired one through the employment agency and later had to hire a second one.

Travel Agents at Work

A field trip to Chimayo to explore careers in rural communities stimulated a great interest in weaving as demonstrated by Mr. David Ortega. The interest resulted in students later producing lovely belts, purses, sit-upons, and other items.

Students were also fascinated by the work of a wood carver whom they visited. His use of Spanish gave students an opportunity to realize that bilingualism is an asset.

A menagerie of classroom animals captured and held the interest of the students. A few students, highly motivated toward careers as veterinarians, etc. had responsibility for feeding and caring and loving the animals.

One student became so involved with the animals that she applied for and accepted a job as a junior volunteer for the Animal Humane Association. She keeps a daily log of her duties and experiences with the animals.

Communication is a key to the success of the career education study, as language arts permeates every aspect of learning and serves to unify and strengthen the program. Three of the Indian children, becoming increasingly aware of their cultural heritage decided to write a book telling of their lives as it relates to their Indian background. Stories were written, pictures drawn, and this study in cultural awareness began to take the appearance of a book. As others read this book, they became interested in writing books of their own, so a publishing company was set up. Each group of students had an editor, writer, artist, research team. The books were written, edited, and finally sent to the publisher for final approval and typing.

Manuscript typing

Role-Playing a Barber

EVALUATION

The results of the project proved to be much more positive than anticipated. Responses on the post test showed that a definite change in attitude had taken place since the pre test. They indicated a definite interest and positive attitude toward careers.

Conclusions. Perhaps one of the most significant things we learned was that children learn from what interests them and from each other. Things happened in our classroom because the students made them happen, not because of or from what we wanted to teach.

The open classroom proved to be a perfect laboratory for the implementation of a relevant curriculum because the activities in the prescribed subject areas become "a way of classroom life" that is in complete agreement with life outside the classroom. Having experienced the implementation of a program so successfully, we will draw from the experience, improve upon it, and continue the practice.

BUDGET

Materials and supplies		$369.10
Field trips:		
Chimayo	$79.00	
Cochiti Lake	36.00	
Zoo	14.00	
	$129.00	129.00
	TOTAL	$498.10

TITLE: FUTURE CAREER AWARENESS DIRECTED TOWARD THE WORLD OF ELEMENTARY CHILDREN

SCHOOL: Matheson Park Elementary

COORDINATOR: Jacqueline Moore, Principal
Deborah Yeakel, Teacher

PROJECT ASSESSMENT

Nature of the Problem. Education is seen as preparation for making a living, as well as preparation for enjoying life. However, few school age children have learned how jobs are sought; they need to be provided with information and experiences in order to analyze their needs, abilities, and talents.

Our program is based on the recognition that technology and the ways in which men employ it -- to survive, to improve their standard of living, and to go beyond yesterday's frontiers -- should pervade the classroom as thoroughly as it pervades our lives.

Hypotheses and rationale. We propose a series of activities to introduce tools, technology, and world of work experiences into our present curriculum. This program relates academic and mechanical skills to the achievement of career objectives. The activities will help the student to comprehend the subject matter and relevance of language, mathematics, science, economics and other basic academic skills, and develop a career awareness.

OBJECTIVES:

1) Early self awareness

2) Capacity to deal effectively with the changing environment

3) The opportunity to discover and productively use individual abilities

4) Increased knowledge of occupational opportunities as an aid in making wiser career decisions

5) An appreciation of one' personal responsibility to become a productive member of society

6) To make obvious the connection between the work seen and the academic program

7) To provide realistic "hands on" experiences, field trips, speakers in various fields, and the opportunity to gain occupational information through a variety of media

8) To better prepare students to make wise course selection in their high school career

9) To enhance the student's ability to do occupational planning that is sequential and commensurate with his abilities, interests, and opportunities.

10) To improve the attitudes about work:
The nature of work
Where people work
Why people work
Feeling people have about work
Demands of industry and business

PROJECT DESCRIPTION

People Involved. The Mini-Grant activities involved 6 teachers and their classes representing students from grades 4, 5, and 6, a total of 180 students.

Facilities. The program was conducted within individual classrooms, the library, and cafeteria.

PROJECT METHODOLOGY

Thursday and Friday afternoons were divided into two periods each and were reserved for career education activities. During these afternoons, students were scheduled in the eight different interest groups. Each group consisted of at least five sessions and classes were rotated so that all children had opportunity to try the different activities.

Group 1 - Food Oriented Vocations

Activities included:

1. Report on interviews with persons in food business
2. Practice setting a table and serving
3. Role-playing work situations
4. Cooking - select recipe, purchase food, follow directions for preparation.

Group 2 - The World of Work as Seen Through the Eyes of Mucho Macho. Here it must be explained that students were fortunate to have a series of small books written by a teacher in Silver City about a character called Mucho Macho with whom students could easily

identify. Mucho Macho zooms around on his beloved motorcycle which he lovingly calls "machine". He dislikes school, but loves to buzz around schools and show off, popping wheelies and gunning the motor. Mucho Macho then has many adventures in an effort to avoid school, and then find work. The emotions that this character feels are the emotions felt by all children, fear of not being liked, wanting attention and so forth. Additionally the books are written so that students in a particular locale can fill in the whereabouts of Mucho Macho with names of streets near the school and even the name of their own school. Obviously, the students really enjoyed reading these books and discussing color transparencies that illustrate the adventures.

Students then used Mucho Macho as a symbol for career awareness exploration. They wrote their own stories about his attempts to find work. In doing this, they had to research career opportunities, requirements, and rewards in the SRA WORK kit. The children decided to make a copy of their impression of Mucho Macho and he became a shaggy, long haired troll, who sometimes could not see very clearly because of the hair in his eyes.

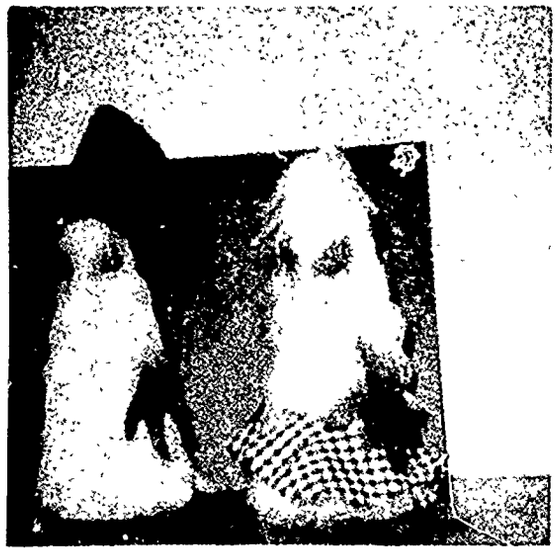
Activities:

1) Assembly of Mucho Macho Troll

2) Assembly of cardboard covers for Mucho Macho booklets.

3) Dyeing silkpan for cardboard covering

4) Sewing troll hats that depict a variety of jobs



5) Writing booklets featuring Mucho Macho in the World of Work.

Group 3. Woodwork and Shop Vocations

Activities:

1) Discussion of jobs related to building and building-related industries.

2) Teacher demonstration of specific tools and techniques followed by pupil demonstrations during guided work periods

3) Construction of items useful to the school, as balancing beams for younger children, and a work bench.

Group 4. Floral Design

A local florist volunteered his time to lead demonstrations and instruction for this group.

Activities:

1) Plant and care for terrarium

2) Make a corsage

3) Demonstration by professional

4) Make floral arrangement

5) Work in small groups

Materials Needed:

Mason jar, potting soil, colius plants, carnations, tule, ribbon, floral wire, floral tape, wire cutters, plastic bags, container for flowers, styrofoam, knives, stryo clay, artificial flowers, and picking machine

Group 5. Cardboard Face Puppets

Activities:

1) Discussion of "producers of services," related to constructing puppets for Miss Mead, speech therapist at Bataan Memorial Hospital.

2) Talking with a primary grade teacher about usefulness of puppets with younger children.

3) Creating stick puppets through cooperative group work.

Group 6. Touch Typing

Activities:

1) Discussion and demonstration of correct use of operative features of typewriter

2) Individual practice sessions for accuracy and enjoyment, guided by parent volunteers

Group 7. Making and Marketing Robber Stamps

Activities:

1) One child from each 6 classrooms visits Southwest Rubber Stamp Company where Mr. David Intermont demonstrates the making of rubber stamps. Each student makes 2 stamps.

2) Discussion of specialization of workers, related to small businesses, profits, supply demand.

3) Discussion of sale of stamps to purchase aquarium for pediatrics section of Bataan Memorial Hospital

4) Individuals produce stamps, with brotherhood words, in small groups following teacher demonstration--students help teach

EVALUATION

Pre-post tests. This teacher-made instrument involved student discussion and open-ended questions requiring a written response. Analysis of results suggests evidence of behavioral change.

On the post test, more students vocalized multiple considerations to be weighed when selecting a future job. Generally, pupils felt no permanent bondage to a single career goal, but were willing to investigate further career opportunities. Many chose to consider jobs requiring technical skills and services which would suggest appropriate social attitudes toward all kinds of occupations.

Teacher Observations. The following behavior changes in children are noteworthy:

Skill Accomplishment. A high level of skill accomplishment was evident. Children were eager, enthusiastic and highly motivated. Pupils managed time wisely, and persevered until tasks were finished. No damage was done to the equipment used. And new verbal skills were evident.

Peer Relationships. Teachers felt there was significant improvement in peer relationships. Activities promoted sharing and helping one another. Responsive pupils were impressed with one anothers projects; many praised achievements of fellow classmates.

Attitudes and Self Concept. We concluded that pupils demonstrated positive attidues which were reflected in attendance, rapport and achievement. If children had been absent in the morning, they 'somehow managed' to be present during afternoon vocational activities. Pupils showed pride and satisfaction upon completion of tasks.

RECOMMENDATIONS

1) Expansion of present program to include entire school.
2) Provision of activities which will yield services to the entire school.
3) Survey enrollment cards to note parents' occupations and utilize them as speakers and helpers.
4) Assessment of occupational outlook for key jobs in the County.
5) Investigation of existing career education programs in our feeder junior high schools and mid-schools.

RESOURSES AND REFERENCES

1. Speakers:

Living Witness Speakers sponsored by Albuquerque Human Resources Council
Mr. Paymella - Bead Work
Mrs. Franks - Bell Telephone Co.

Mr. Mathews - Public Service Co.
Mr. Julio Chiaramonte - A.P.S.

2. Adults Helping in Mini-Grant Activities

Parents
- Mr. Mathews
- Mr. Paymella
- Mrs. Mann
- Mrs. Ward
- Mrs. Cox
- Mrs. Baca
- Mrs. Romero
- Mrs. Perea
- Mrs. Lawson
- Mrs. Tomazewski
- Mrs. Justice
- Mrs. Pennington
- Mrs. Martin
- Mrs. Loss
- Mrs. Fahrbach
- Mrs. Anderson
- Mrs. Rueb
- Mrs. Dustin

Non-Parents
- Mr. Buckley
- Mr. Strong
- Joe Marquez
- Elizabeth Miller
- Nancy Holland
- Mrs. Franks
- Mr. David Intermont
- Gertrude Keil

3. Field Trips
- Duke City Lumber Co.
- Police Station and Traffic Court
- Rainbow Bread Co.
- Court House
- Levi Strauss Co.
- Nursery on Corrales Rd.
- TV-I
- Arrow Glass Co.
- Bataan Hospital

BUDGET

Supplies (beads, hand tools, cloth, patterns etc)	$540.00
Resource (Educational Aide)	75.00
Equipment (2 used sewing machines)	40.00
Transportation (Field Trips)	345.00
Total	$1000.00

TITLE: ELEMENTARY CAREER ORIENTED COUNSELING

SCHOOL: Mission Avenue Elementary

COORDINATOR: Gordon M. Brown, Teacher

PROJECT ASSESSMENT

It was felt that elementary schools can do much to prepare children with a set of more positive attitudes regarding the world of work, the appreciation for a variety of necessary and rewarding trades that do not require academic preparation beyond high school.

OBJECTIVES:

1) To provide career exploration through field trips

2) To provide career experiences through different activities

3) To reinforce classroom use of the SRA World of Work Kit

4) To improve student attitudes toward the world of work and help them develop respect for all kinds of work

PROJECT DESCRIPTION

People Involved. One sixth grade class and one teacher.

Facilities. The classroom, the cafeteria, the school office, and the community at large.

PROJECT METHODOLOGY

The students had opportunity to visit various trade unions to discover for themselves a number of different job opportunities and the educational and skill requirements for these jobs. Additionally, we conducted laboratory experiences including work in the cafeteria, and the school office. Students were exposed to the work of the school nurse and medical career opportunities. A teacher's aide worked with fifteen girls in a beginning shorthand class.

Three students interested possibly in teaching careers, assisted in the kindergarten. Two girls and one boy took part in this program.

In the shop, the first project was upholstering. An overstuffed base rocker was secured. The owner furnished the fabric for covering the chair and the school furnished other materials. The chair was completed to everyone's satisfaction and two more chairs were re-upholstered. After that segment, we went on to woodworking and many small articles were made.

Another activity was stone polishing. Students learned to use the lapidary cut off saw and how to polish stones.

This vocational awareness program was carried on after school. Because many of our students ride the school bus, it curtailed the program somewhat.

EVALUATION

Students were enthusiastic about the activities as evidenced by the fact that eight of the twelve boys who began the course finished the program even though transportation was a problem. Fifteen girls had also benefited from their project in office skills. Students indicated the career awareness program helped to change their attitudes about work as well as providing them with enjoyable skills.

RECOMMENDATIONS

1) Recommend such activities be made an integral part of the regular school hours, and that activities be expanded to include more classes.

BUDGET

Materials and supplies (from SRA)	$92.00
Transportation for field trips	140.00
Other Materials	25.00
Typing	15.00
	$ 272.00

TITLE: CAREER AWARENESS

SCHOOL: Mitchell Elementary

COORDINATOR: Jessie Mae Moore, Teacher

PROJECT ASSESSMENT

Nature of the Problem. This Career Awareness Project was the outgrowth of a recognized need that children should become aware of the world of work at a very early age.

Hypotheses and rationale. The teacher used the approach to fuse into the existing school curriculum experiences that would enhance traditional learning expected at this level and would also help to accomplish certain career development objectives. The approach would prevent the creation of a new curriculum area for the elementary school and would serve as a vehicle for integrating in a meaningful manner learning from various subject matter areas and would provide a base of experience on which more abstract career experience might follow.

OBJECTIVES: The child will be able to:

1) see himself as an important and valuable person;

2) see himself as a worthwhile worker;

3) analyze his abilities and interests in order to plan for career development;

4) realize that getting along with people is an important part of job success;

5) develop an attitude of respect for the dignity and value of work;

6) know and accept the fact that all work is important;

7) know and accept the fact that people work for various rewards or satisfactions;

8) know and accept the fact that a person may find many jobs which are suitable for him;

9) relate school to work and realize that school helps now and also for the future;

10) recognize that attending school helps one learn how to get along with other successfully;

11) recognize that learning basic school skills is necessary for all kinds of jobs;

12) recognize that training is necessary for most jobs;

13) recognize that gaining information about many kinds of jobs is part of the developmental process of choosing a career.

PROJECT DESCRIPTION

People Involved. One class of fourth grade students and one teacher.

Facilities. A regular classroom and the community at large.

PROJECT METHODOLOGY

The project was begun with emphasis on individual differences and projects that pointed out the desirability of differences. Secondly, the class began a study of the democratic process. It was decided that elections would be held for the office of mayor. Students formed two parties, conducted election campaigns with posters, speeches, and TV press appearances and finally held their election. This was followed by "swearing in" ceremonies. We were ready then to plan the development of our community.

The mayor appointed a City Planning Commission which was to lay-out a city. Following the plans drawn up, a city grew on the bulletin board including houses, factories, small business buildings, apartments, stores etc.

Each student then was involved in a project to layout his own home according to a blue-print plan. They used catalogues to cut out pictures of furnishings and each child recorded his amount of spending. Some students found that their spending was quite extensive and then they began to ask how they would pay for it all. Students then were led to choose from a list of jobs needed within a community (which they compiled) the job of which they wanted to be in charge.

Students used the Occupational Outlook Handbook to find salaries of the jobs they had selected. Then they began to realize they couldn't build and furnish their homes all in one action. This led to a study on banking, borrowing etc.

At this point, students also investigated the pro and con of different living conditions such as trailers, apartments, rental homes, etc. Some students changed their housing facilities within the model community.

Then we were ready to write letters of invitation to people in the city asking them to come into the classroom to speak and be interviewed by the class.

The children practiced giving interviews, and considerable time was spent on how to conduct an interview and how to report it afterward.

Questions we asked speakers were:

1. What are the different types of workers in this occupation?
2. What types of work do most of the workers do?
3. Is the work done inside or outside?
4. What are the duties performed?
5. What are the educational and experience requirements for the jobs?
6. What are the physical requirements?
7. What are the earnings?
8. What are future opportunities?

Speakers and field trips were coordinated with our study units as listed below:

1. Policemen
2. Firemen
3. F.B.I.
4. Finger painting
5. Outline for the study of an occupation
6. Appreciation for music
7. Telephone Manners
8. How to become a telephone employee
9. Career scrapbook requirements
10. Banking
11. Quilting
12. Candle Making
13. Exploring electricity simple circuits
    Light magnetism electricity and magnetism

14. Man the Inventor
15. Wood charcoal
16. Getting and keeping your job
17. Writing an application
18. The job interview (with role playing)
19. Work attitudes
20. Civil Defense
21. Airport
22. Math wood projects
23. Ecology
24. Interviewing

RESOURCE PEOPLE

Sgt. Bob Minor, Albuquerque Police Dept.
Inspector Zack Romero, Fire Prevention Bureau
M/Sgt. William C. Schroeder, R.O.T.C. Instructor
Mrs. Ben Morrison, Mother
Mrs. Anna Marie Salazar, Mountain Bell
Mrs. Ruth T. Martin, Mountain Bell
Mrs. Don Gunderson, Quilting
Carlos Trantham, Music
Otis Gilmore, Music
Mrs. Claire Jorgensen, Quilting
Mr. Al Altomere, Educational Media Co.
Mr. Julio Chiaramonte, East Area, Voc. Counselor
Mr. J. C. Hess, Los Angeles Police Dept.
Abran Lucero, Environmental Health Dept.
Mildred Maughlin, Area East
Mrs. Jean Franks, Mountain Bell
Mr. Norman Bergsma, Albuquerque Tribune
David Landau, Univ. of New Mexico Medical School
Bill Meazel, Singer
Mrs. Grace Henze, Kit Carson Nurse
Ricky Martin, TWA Pilot
Bill McCoy, All State Insurance
Clairessa Bergguist, Handwriting
Phyllis Davis, Archiologist
Mr. Bernie May, Mays Music Co.
Dodie Miller, Public Service
Mrs. Betty Harrison, Mitchell Principal
Alyce Richards, Rehabilitation Center
Mr. Chavez, Rio Rancho Estates
Mr. John Benton, Civil Defense
Forest Ranger, Tram
Mr. Burns, F.B.I.
Mr. Bill Patterson, Edwards & Sons
Dr. Martin Fleck, Public Services

Mr. H. Edwin Cheney, Mountain Bell
Doris Riggins, Dillards
Mrs. Stan Caplan, Psychologist
Mr. Phil Rodrigues, 1st. National Bank
Mrs. Gwyn Saylors, Counselor
Sgt. Bill Burt, Air Force
Mrs. Herbert Floyd, Nurse
Mr. Donald Gunderson, Norway

Field Trips:

City Tour including: Avory Auto, Piggly Wiggly, Health & Environment, Roosevelt Park, and F.B.I.

City Tour: Tram, Roosevelt Park, Telephone Co., Telephone Training Center

City Tour: Children's Rehabilitation Center, Rio Rancho Estates, Old Town Plaza

Acoma Pueblo

Cienega Canyon

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Barrow, Harry. Man In A World of Work. Boston: Houghton Mifflin, 1964

Bidna, David. We The People: A History of the United States of America. Lexington, Mass: D.C. Heath and Co., 1971

Cullum, Albert. Push Back the Desks. New York: Citation Press, 1967

Hammonds, Carsie, and Carl Lamar. Teaching Vocations. Danville, Ill. Interstate Printers and Publishers, Inc., 1968.

Hopke, William E. Encyclopedia of Careers and Vocational Guidance, Vol. I, Planning Your Career. Garden City, N.Y.: Doubleday, 1967

Jackson, Kathryn. Work Around the World. Morristown, New Jersey: Silver Burdett Co., 1968

Lifton, W.M. Keys to Vocational Decisions. Chicago, Illinois: SRA, 1964

Additionally, we used many children's career series books, films, and filmstrips.

BUDGET

Toastmaster, 2 burner buffet range	$18.27
Lumber	12.00
6 rolls of film	5.94
Discussion Guide for Career Transparencies	98.00
Elementary Guide for Career Development	5.00
Kodak X-25 Camera	22.97
Materials for a Listening Center	25.87
2 Panosonic Cassettes	79.90
1 Okie Listening Center	58.00
Communications	14.00
Typing Services	15.00
Field trips - Transportation	145.00
TOTAL	$ 499.95

TITLE: BUILDING PRE-VOCATIONAL ATTITUDES AND LITERACY AT THE ELEMENTARY LEVEL

SCHOOL: Sierra Vista Elementary

COORDINATORS: Normal Krogdahl, 3rd grade teacher
Frances Wade, 6th grade teacher

PROJECT ASSESSMENT

Nature of the Problem. Students were leaving school not being prepared to make intelligent selections in the world of work. Therefore, we felt there was a need for a program designed to serve each student, to develop his creative potential through career awareness and career experiences.

Hypotheses and rationale. Students involved in a career development program could choose among the many different types of jobs and develop an attitude for (a) the dignity of work, (b) doing a good job, (c) getting paid for good job performance.

OBJECTIVES:

1) Investigations of environment

2) Get a feel for possible careers

3) Learn the ways our society deals with people

4) Learn what adults do with their time

5) Each student will be able to direct his own learning activities for self-satisfaction.

6) Each student will be able to work with peers cooperatively and responsibly.

Criterion Measures.

1) Developmental Profile from Methods in Human Development (Harold Bessell and Waldo H. Palomares)

2) Teacher diaries

3) Combined third-sixth grade seminars

4) Parent - teacher conferences

5) Video - taped classroom activities

6) Field trip follow-ups

7) Individual student contributions (stories, poems, pictures etc.)

8) Evaluations from S.C.I.S., Scholastic Individualized Reading, and SRA W.O.R.K.

9) Teacher reports

10) Teacher-made tests

PROJECT DESCRIPTION

People Involved. Two classes jointly shared the Mini-Grant and many experiences. One class was third graders and their teacher, the other was a sixth grade class and their teacher.

Facilities. Each group met primarily in its classroom, approximately 35' x 42'. Within each room, separate interest centers were established, including:

1. woodworking shop
2. kitchen
3. science lab
4. animal center
5. math center
6. writing center
7. reading and listening center

Sessions were conducted using an open-space concept.

PROJECT METHODOLOGY

The rooms were divided into learning areas dealing with basic skills. Each of the learning areas was filled with self-directing materials. Children had the freedom for large parts of the day of working in various areas, in small groups or alone. With some activities, teacher help was needed, but learning from other students in the group was the usual thing.

First thing every morning, students gathered in a group to plan the days required activities and discuss plans for the future.

In the classroom the teacher's job was to make sure each child had sufficient exposure to the various learning areas, answer questions, encourage problem solving, and provide individual attention wherever needed. Activities in all subject areas in the third grade that involved the entire class were used in a Team Learning approach. Lab experiences were included almost daily -- cooking, woodworking, science, crafts, etc. We relied heavily on field trips for career awareness, along with resource people coming into the rooms.

Third Grade Activities

1) A trip to Corrales (15 minutes away) was taken to investigate how farmers irrigate their crops. Mr. David Perea demonstrated how he lifted the gates to flood his alfalfa field. This was an example of how an irrigation ditch helps farms. We also observed a drainage ditch and students were able to see how the two differ.

2) Students observed and discussed the building going on in the community and visited a mobile church.

3) Ecology became a part of the curriculum which we emphasized. Students collected cans, bottles, and trash from the playground and used these items in the art center. They were encouraged to take photographs of the school yard showing pollution and the absence of pollution.

4) Mr. Krogdahl exposed the class to the life of a bee by letting each child go through a hive with him to locate the queen bee, the workers, and the drones, and see the eggs and the baby bees emerging from cacoons. (Beekeeping is a fascinating hobby that students learned can become a full time job.)

5) The class visited UNM to see plants at the Botany Department, fossils and rocks at the Geology Department, and art at the Fine Arts Gallery.

Sixth Grade Activities.

Mrs. Wade reported that her students had developed a real enthusiasm for reading by using the Scholastic series, and that reading abilities had been greatly improved. The sixth grade class shared in third grade activites and visa versa expecially the speaker and some field trips. Additionally, the older children were involved in such activities as weaving with looms, and working on motors , and science projects such as dissecting the eyes of a cow.

Taking dictation requires concentration -

Sixth grade students demonstrating the creation of a "German Torte"

Busy minds and hands in our workshop center

EVALUATION

When talks were given by different people, or visits made to different places, the type of questions asked by the classes revealed that the majority were learning about careers and how people work together. Interviews with parents after the first nine weeks of school were positive with regard to the unstructured classrooms.

Conclusions. This year I have noticed in the children a sense of belonging and independence. Reading proficiency more than doubled for more than half of the class. Math attitude for more than half of the students went from poor to very good. Student's self concepts showed a steady climb in most areas. Many of the students (even the third graders) now are able to make decisions and are willing to stand behind them.

RECOMMENDATIONS

1) Larger room and more classroom assistance.

2) Carpeting and sound-proof walls

3) Each Area might set up collection bins for scraps of different kinds of useable materials such as wood that might be obtained as scrap from contractors, factories, lumber yards, etc.

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Naslund, Robert A. Graph and Picture Study Skills, 1961, SRA

Palomares, Uvaldo Human Development Training Institute, 1970

Peppard, Donald F. Multiplying Machine, Copyright by Developmental Learning Materials Co.

Simon, Leonard Individualized Study Units in Arithmetic, Level I, 1970 Holt, Rinehart and Winston

Stern, Catherine Structural Arithmetic, Houghton Mifflin. Kits

Suppes, Patrick: Jerman, Max Individualized Mathematics Drill and Practice Kits, 1969. L.N. Singer Co.

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Mr. Stan Rarick, North Area, A.P.S.
Mrs. Bob Hooten, Workshop Originals
Mrs. Marjorie McCament, Santa Barbara Center
Mr. David Holmes, Coronado State Monument
Mrs. Elaine Niskala, Rhodes Dept. Store
Mrs. Stan Zuris, Transportation-field trips
Mrs. Pat Taft, Children's Librarian
Mrs. Nell New, North Area Office, A.P.S.
Mrs. Esther Sanchez, Sierra Vista Cafeteria
Mrs. Henrietta Loy, North Area, A.P.S
Mr. Julius Beverly, KANW Broadcasting Station
Miss Kathryn Pelphrey, North Area, A.P.S.
Mr. Alan Noyes, electronic computers
Mr. Pat Farina, Sandia Corp. - Glass blowing demonstration
Mrs. Edwin Summons, Seminole Indians
Mr. Bruce Stringer, Rio Grande Zoo

BUDGET

Individualized Reading materials (Scholastic - Grade 6)	$97.50
24 pounds assorted yarn	84.00
2 Underwood Standard Typewriters	97.00
1 Science Curriculum Improvement	337.80
Misc. Tools and Supplies	77.96
	$ 731.96

6TH GRADE STUDENTS IN FRONT OF OLDEST HOUSE IN SANTA FE. TRIP TO LEGISLATURE.

Wade

SECTION IX

INDEXES

INDEX BY AREA AND SCHOOL

INDEX BY GRADE LEVEL